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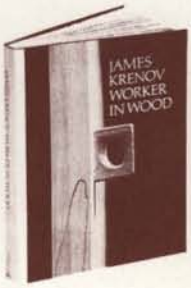
James Krenov



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Volume 3, Number 2
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Contents

4 **College of the Redwoods Woodworking Program** by Deborah R. Upshaw
James Krenov's School

8 **From the Publisher**

8 **Letters**

9 **Calendar & Announcements**

12 **Plywood Computer Cabinetry** by Maurice Norman
How To Build It

18 **The Fourth Corner** by Bill Farnsworth
The Boeing Wood Model Shop in Seattle

20 **Woodworking in Paradise** by Jean Davis and Charles Harris
Hawaii, the Big Island

25 **Test Report:** *the Alder MAG-PAD*

26 **Marketing** by Ray Jones
The Crafts Show Circuit

30 **Power Hand Tool Wood Carving** by Spike Boyd
Lesson 12: Questions and Answers

33 **Yin-Yang** by Raymond L. Levy

34 **News & Notes**

36 **Store Review:** *Woodline the Japan Woodworker*

37 **Classified Market**

38 **Recently Published Books**

40 **The Working with Wood Show at Fort Mason** by Charles Harris
A Pacific Woodworker Show Review

42 **Conservation** by Martin Zschoche
The Giving Tree

Cover Photography: Bill Irwin, Deborah Upshaw

The College of the Redwoods Woodworking Program

James Krenov's School

by Deborah R. Upshaw

A stunning exhibit at the Gallery Fair in Mendocino this past May represented the culmination of student efforts during a rigorous nine-month work schedule at the College of the Redwoods woodworking program in Fort Bragg, California.

I witnessed craftsmanship at its best as I admired dozens of expertly crafted pieces of fine furniture on display (see photos). The attention to detail, the carefully selected types of wood, the simplicity in form, all reflected the knowledge and practical expertise the students had gleaned under the direction of Russian-born master craftsman, James Krenov.

I had the feeling that I would grow fonder of each piece if it were mine to have. I talked to James Krenov about this phenomenon.

"With manufactured furniture," he explained, "The closer you come to it, the less interesting it is, until finally you get real close and you don't want to look anymore. These pieces are the opposite. They are interesting at a distance, but the closer you come the more there is to discover, the more there is to feel and appreciate.

"I call them *permanent curiosities* because there is always something more to be discovered. You live with it awhile, then you open something or look behind something, and there is a little surprise. You don't tire of them."

James Krenov, founder of the College of the Redwoods woodworking program, Fort Bragg, California.

The School

Twenty-two students were selected from the thousands of queries received for this second year of Krenov's instruction. All these students, of varying ages and including four women, had intermediate or advanced level prior woodworking experience. Although students are required to bring many of their own tools, they can count on handcrafting many more tools during the course, especially Krenov's preferred woodworking tool, the wooden plane.

Krenov's assistant, Creighton Hoke, explained. "Planes give a luster to wood you can't get with other tools. You can achieve far more precise results with a plane, if you know how to use one."

"At first the planes I made were pretty crude," said Lisa Crouse, a student from Humboldt County, California. "Then later I made better planes with better irons and wood." She also learned to make and use several spokeshaves—tools which she

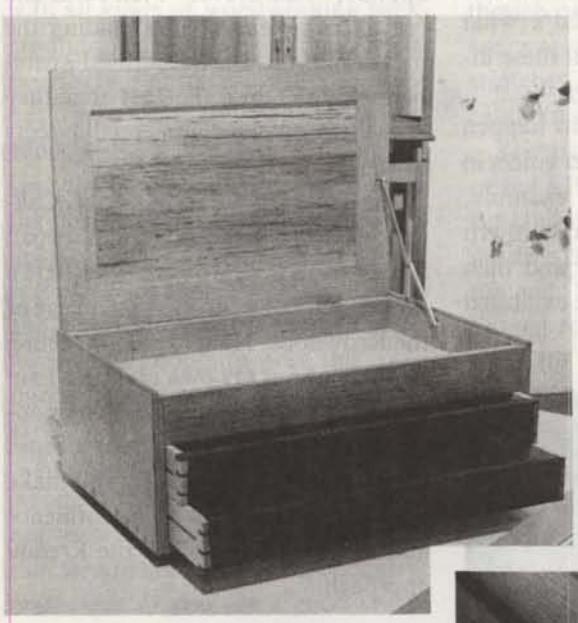
continued

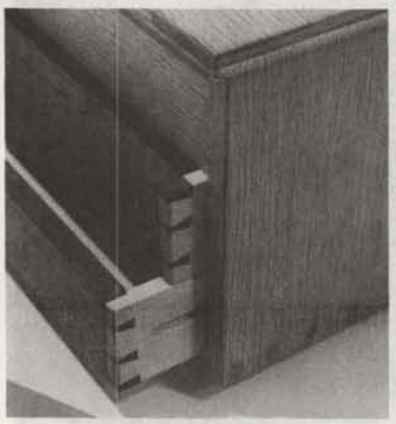
Some of the fine work displayed at Mendocino's Gallery Fair by students at the College of the Redwoods woodworking program.

Reg Herndon's display chest, 12-1/2" h x 20" w x 6-1/2" d

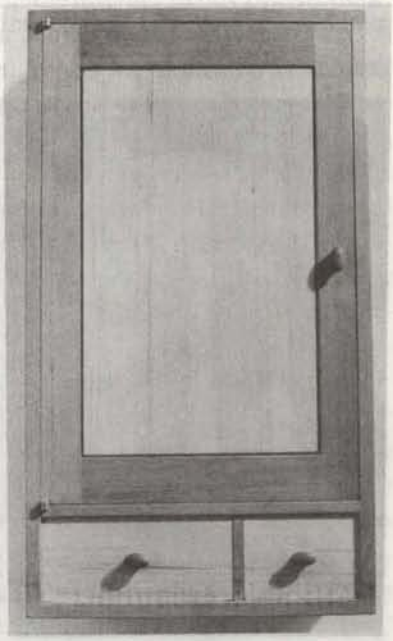
Chair by Charles Argo, ash and handwoven fabric, 33" h x 20" w x 17" d

Silver Chest by Bill Walker, tan oak, pecan, rosewood, maple and ebony, 7" h x 12 1/2" w x 19" long. Detail: through dovetail joints.





Wall cabinet by Janet Bryer, mahogany and pecan, 12" h x 21" w x 6" d



Deborah R. Upshaw of Humboldt County, California, is a frequent contributor to Pacific Woodworker.

used when working on tight curves on the legs of a boneyard stool that she exhibited. Lisa chose the Fort Bragg program because of the freedom offered to do quality work.

Each of Krenov's students has his own work bench, tool cabinet, and stool in a two-room, 4,000-square-foot building. The bench room is separated from the machine room by a wall and two large double doors, which makes for a quiet environment while busy at the bench. The mood is relaxed. Dried flowers grace a work bench here and there. Postcards and photos are pinned up in a personal way. Yet there is the overwhelming feeling of tidiness and organization.

Three part-time instructors assist Krenov—Michael Burns, Creighton Hoke, and Michael Dehaven. They all emphasized that the focus of the college program is *taking the time to learn to achieve good results*. "The program is intensive intentionally," explains Hoke. "We work six days a week, eight hours a day, so students get into a rhythm and flow."

The Course of Study

The major emphasis of the first quarter of instruction is making a simple box, along with hand crafting tools. More involved projects and major pieces of furniture are tackled during the second and third quarters.

Students learn classic cabinetmaking techniques such as dovetailing and doweling on joints. They practice mortise and tenon techniques on stands and table legs. Other topics include coopering and laminating techniques and veneered wood panels.

Although the student has access to the finest machinery and hand tools, the student learns that his fingertips and eyes are his most valuable tools. He learns to recognize the wide possibilities in a plank of lumber. He learns to pay attention to details and he learns about the versatility of wood.

Personal discoveries, curiosity, and adventures—these feelings, combined with skill and patience, are what the teachers want the students to experience.

Krenov says, "There is a lot of adventure in this, and that's what keeps these people going, all these little discoveries along the way."

Interesting things begin to happen when you listen to those inner voices in the creative process. For example, Kyle Kinser (a student from Southern Illinois) began with a door and then shaped a case around it. He exhibited a standing cabinet of cedar, white oak, zebra wood, and walnut doors. He explained how it evolved: "The idea started with a scrap of walnut. I trimmed off a piece and found an edge with a curve. I wanted to incorporate panels with the organic edges still in it. And, in the finished piece, there is still a slight reminder of where the wood came from."

The Students

The students I met were enthusiastic and many of them felt privileged to be part of such an exhilarating woodworking experience. They came wanting to learn good skills.

Steve Sekerak of Halifax, Nova Scotia, had twenty years of woodworking experience before coming to Fort Bragg. "As soon as I heard James Krenov was on the continent, I applied," said Steve. "I felt I was due for an experience. I am finding the more time you take the better the cabinetmaking. I like the fact that they focus less on the commercial aspects of it."

A student from Pacific Grove, California, Rolf Lygren, had a broad background restoring Victorian homes before he enrolled at College of the Redwoods. He said, "I am feeling stronger about my own abilities. I am able to take on more. I have a new appreciation for simple subtleties. From here I will go on to design and make my own furniture—with an influence and inclination to follow the Krenov approach."

Students in bench room.

James Krenov, Master Instructor

Whom do they find when students come face-to-face with the celebrated cabinetmaker? "Not a man garbed in a long, white robe," says instructor Creighton Hoke, "Just another human being who wants to teach."

Krenov, dressed in cords and a plain white cotton shirt, certainly did not strike me as the guru type. I found a man who was friendly, sincere, and humble. And his enthusiasm equalled that of the younger woodworkers in the group.

Those familiar with the books written by James Krenov can appreciate the underlying philosophy of the woodworking school. The idea is definitely *not* aimed at learning something fast, so as to hurry up and make money at it.

Krenov says, "People come here with all kinds of woodworking backgrounds, but the thing that brings them here, I think, is an interest in the personal side of woodworking. Woodworking the way it relates to you, the way you would like to do it, the fact that you would be happy doing it . . . it's not just another job."

Putting so much personal creativity and effort into each piece one makes leads some people to pose this question: "Is this to be considered fine art?"

Krenov addressed this point at length: "The word art bothers me. We are so preoccupied with being artists that we are not responsible enough as craftsmen. If you are a good craftsman, and if you are artistic, you may or may not do something that may one day be regarded as art. But let other people determine that. There are people who could do with a little more humility and enjoyment of the process and less preoccupation with whether or not they are artists."

Krenov also discussed the practical side of cabinetmaking, in a business sense. He stated, "There is a large segment of woodworking where efficiency through technology is what it's about—making a living, an entrepreneur type of existence. Although our approach is different, we are not unrealistic. Many of our students are making their way as cabinetmakers, and many more will."

Student uses a bench grinder.

Krenov, now in his 60's, has received a Fulbright Grant to go to New Zealand this summer to do workshops in three cities and on both islands. In the fall, he will return to the foggy coastal town of Fort Bragg and continue his California mission. Of the College of the Redwoods school, Krenov says, "Fundamentally, the school has an approach of its own. It has a definite purpose. What I'm doing is building up a team—Michael Burns, Creighton Hoke, Michael Dehaven. We don't pretend to be all things to all people. We do a particular kind of thing and, hopefully, we do it well. That's all we can hope for. And it's very much appreciated already. We have letters from people all over the world."

Future developments at the Fort Bragg school might include a foreign student exchange program, and assistant Hoke hinted about the exchange happening with the Malstem School in Stockholm. And this summer several workshops are again being offered by Krenov's assistants at the Fort Bragg school.

Krenov enjoys teaching on the Pacific Coast. He says, "The wonderful side of California is this marvelous exuberance and 'anything is possible' spirit. But, people don't always have the self-discipline to go with the dreams, aspirations, and this marvelous energy. You need the skill and discipline in order to buy the freedom. *Skill is the key to freedom of expression*. If you are skillful, you can say what you want to say."

Krenov himself feels fortunate in being a part of the successful woodworking program. He sums it up this way: "I'm a lucky person to be working with young people. And at my age —caught right in the middle of enthusiasm. That makes me tremendously happy."

So come autumn 1983, another twenty-two students from all over the U.S., Canada, and Europe will be lucky enough to experience the satisfying hours spent learning the cabinetmaking techniques taught by James Krenov and the woodworking school at the College of the Redwoods in Fort Bragg.

From the Publisher

Growing Pains

Pacific Woodworker is growing by leaps and bounds. Thanks to the enthusiastic response of many thousands of Western woodworkers, *Pacific Woodworker* has doubled in circulation since the beginning of this year. And this phenomenal growth is continuing. The more readers, the more *Pacific Woodworker* can offer. Later this year we expect to see larger issues with more articles of interest to the Western woodworker.

But while gratifying, this growth is not without a few problems. As a woodworker might discover as he to expands from piece work to production, sometimes what worked on the small scale bogs down a larger operation. Things fall into cracks, and get lost there. The right hand and the left hand may have only the vaguest idea what the other is doing. In our case, in a few instances, some subscription requests did not receive the prompt, efficient service we strive to provide.

With our move into new, larger offices, many of these temporary problems should be eliminated (and a whole new set started, most likely!).

We want to thank you all for bearing with *Pacific Woodworker* as we grow. You will get a better magazine because of it. If you still have a problem or question about your subscription, let us know. And thanks for your patience.

Charles Harris
Publisher

Letters . . .

Pacific Woodworker welcomes your comments, pro or con, about articles and information we publish. Send your letters to Editor,* Pacific Woodworker, *P.O. Box 4881, Santa Rosa, CA 95402. Letters may be edited for publication.

A McLaren HS Found

In reply to the request of James Lynn in regard to McLaren High School: There is a boys' training school in Oregon that has a high school named McLaren High School. The address is McLaren School for Boys, 2630 N. Pacific Highway, Woodburn, OR 97071.

Charles M. Foland
Woodburn, OR

No Wood in Nevada?

I am curious as to whether there are any wood craftsmen in Nevada.

I drove to Las Vegas three years ago, having then been a member of the Mississippi Gulf Coast Craftsmen's Guild, and having had two statewide and one national exhibit of my toys, with an excellent sales performance. I came here to Nevada with moderate expectations—I have found interest in toys and other wooden goods absolutely nil. I have been a board member of the Las Vegas Artists' Cooperative; I have had toys for sale on consignment in many diversified shops and had nearly completely negative results. This town is certainly not ready for any type of handiwork.

Fred Hemmerly
Las Vegas, NV

Designs Available

My current projects include an adjustable chair I recently patented and a birthing chair. Both are production pieces that I am not set up to mass produce. I would be interested in connecting up with a large production shop or people wishing to set one up who need a line of furniture designs.

Stephen Heckeroth
Albion, CA

Having seen pictures, read reports, and viewed in person some of Stephen Heckeroth's designs, we hope to help him make the connection he seeks. Replies to Pacific Woodworker *will be*

continued on page 32

Calendar & Announcements

Events of interest to woodworkers . . .

New Association Forming

Readers in the Sacramento area interested in organizing a woodworking association are asked to contact S. Pendleton at 481-7854.

Aug. 1, 8. Berkeley, CA
Sign and letter carving class, instructor Bruce Britton, Mondays 7-10PM. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Aug. 2. Berkeley, CA.
Sharpening workshop, instructor Tad Laird, 7-10PM. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Aug. 6. Berkeley, CA.
Hand plane workshop, instructor Tad Laird, 10AM-1PM. For details contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

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Aug. 6-7. Alameda, CA.
Second Annual Woodcarving show, sponsored by East Bay Woodcrafters Chapter and Woodline The Japan Woodworker, 1731 Clement Ave., Alameda 94501. For more information call Dick Compton (415) 531-6455 or Nancy (415) 521-1810.

Aug.8, Sept.12. Santa Cruz, CA.
Santa Cruz Woodworkers Meetings. Contact Whispering Winds Hardwoods, P.O. Box 2429, Santa Cruz, CA.95063 or (408) 476-9030.

Aug. 11-Sept. 1. Berkeley, CA.
Joinery class, instructor Miles Karpilow, Thursdays 7-10PM. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Aug. 12-14. Bellevue, WA.
Slide show/lecture and workshop featuring John Nyquist. Reservations required. Contact Woodcrafters, 1910 132nd St. Northeast, Bellevue 98005, or (206) 641-8008.

Aug. 12-14. San Francisco, CA.
Pacific States Craft Fair, Fort Mason. Contact American Craft Enterprises, Box 10, New Paltz, NY 12561.

Aug. 12-19. Berkeley, CA.
Boatbuilding series. For details contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Aug. 15. Berkeley, CA.
Project Planning, instructor Alan Caron, 7-10PM. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

CB Tool & Supply Show Seminars

A continuous series of seminars directed at the needs of the small production shop highlights Woodworking Expo '83, to be held Aug. 18-20 at the San Jose (CA) Convention Center.

Representatives from Wadkin Company will present information on molder and tenoning machines for the '80s. Force Machinery will lead a seminar on making European cabinets, and Termwood, Inc. will discuss machining with robot routers. Seminars will be repeated throughout the show with other special presentations as time permits.

For more information on Woodworking Expo '83, contact CB Tool & Supply, 2502 Channing Avenue, San Jose CA 95131, (408) 263-7710.

Aug. 15-29. Berkeley, CA.
Beginning woodcarving, instructor Ben Shaw, Mondays 7-10PM. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Aug. 16-30. Berkeley, CA.
Making Router Dovetail Jigs, instructor Jed Davison, Tuesdays 7-10PM. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Aug. 18-20. San Jose, CA.
Woodworking Expo '83, San Jose Convention Center. Sponsored by C.B. Tool and Supply Inc., 2502 Channing Ave., San Jose 95131, telephone (408) 263-7710.

Aug. 20. Berkeley, CA.
Chester Wilcox on decoy carving. Also wood turning class, instructor David Dempsey. Both 10AM-3PM. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Aug. 20-21. Sedona, AZ
Arizona Woodcarvers ninth annual show at Tlaquepaque.

Aug. 22-26. Richmond, CA.
Lumber Drying Workshop, U.C. Forest Products Laboratory, 47th & Hoffman Blvd., Richmond 94804. For information contact Janice Montano (415) 231-9404.

Aug. 22-Sept. 2 Idyllwild, CA.
"Build a Piece of Furniture" one week classes with Simon Watts and Joseph Bavaro. For information contact The Cutting Edge, 3871 Grand View Blvd., Los Angeles 90066 or call (213) 390-9723.

Pacific Woodworker will publicize events of interest to woodworkers. Send complete information to Pacific Woodworker Calendar, PO Box 4881, Santa Rosa, CA 95402.

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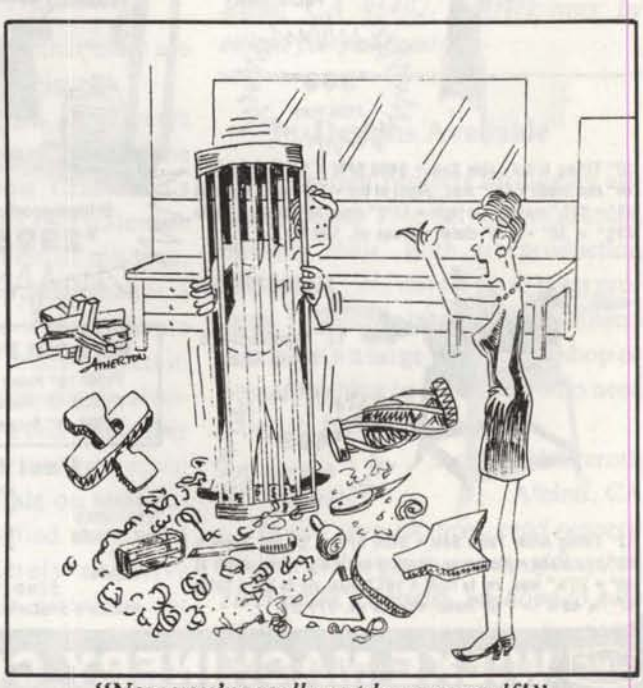

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Aug. 24-Sept. 24. Eureka, CA.
Made With Wood III juried show, Humboldt Cultural Center, 422 First Street, Eureka 95501 or (707) 442-2611. Gallery hours noon-5PM Tues.-Sat. Open to all Northern California woodworkers. Entry forms and fees due Aug. 1. Contact Humboldt Woodworking Society, P.O. Box 626, Arcata, CA 95521 (707) 822-0858/822-2814; or contact Humboldt Cultural Center at the address above.

Aug. 25. Berkeley, CA.
Sharpening workshop, instructor Tad Laird. Also Introduction to Japanese Tools, instructor Ted Chase. Both 7-10PM. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Aug. 27. Bakersfield, CA.
"Woodworking and Chili" with nationally known woodworker. 10 A.M. Members only, RSVP by Aug. 19th. San Joaquin Fine Woodworkers Assn., P.O. Box 789, Porterville, 93258.

Aug. 27. Berkeley, CA.
Bruce Britton on making your own carving tools. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Sept.-Nov. Anaheim, CA.
Classes in woodcarving, woodworking, homebuilding, and home improvements at Ganahl Lumber Company, 1220 East Ball Road, Anaheim. Call (714) 772-5444 to receive class schedule.

Sept. 3. Berkeley, CA.
Making Router Dovetail Jigs, instructor Jed Davison, 10AM-5PM. Contact The Cutting Edge, 1836 Fourth St., (415) 548-6011.

Sept. 8. Orange County, CA.
Meeting, Orange County Woodworkers Association, topic is furniture/cabinetry custom design and construction. For time and location contact OCWA, P.O. Box 2, Placentia, 92670.

Sept. 10. Berkeley, CA.
Swap Meet. Contact The Cutting Edge store, 1836 Fourth St., Berkeley 94710 or (415) 548-6011.

Working with Wood Show

The National Working with Wood Shows seek exhibitors for their Spring, 1984 shows. The Cow Palace in San Francisco is the site of the April 6-8 show, and the May 11-13 show is at the Nassau Coliseum on Long Island, NY. Contact show promoter Jan Cadwallader at Exhibitors Showcase, Inc., 3217 Jefferson Avenue, Redwood City, CA 94062. (415) 366-5033.

Sept. 10-Oct. 8. Mendocino, CA.
Western States Invitational Wood Show (third annual), Gallery Fair. Details from Bill Zimmer, P.O. Box 263, Mendocino 95460 or call (707) 937-5121.

Sept. 11. Livermore, CA.
Tri-Valley Woodcarvers Annual Show, Concannon Winery, 4590 Tesla Rd., 10AM-5PM. Free admission to public, demonstrations, sales, carving competition. Contact Liz Finigan (415) 447-3186.

Sept. 12-16. Richmond, CA.
Workshop, "Design and Operation of Circular and Band Saws," U. C. Cooperative Extension and Forest Products Laboratory, 47th & Hoffman Blvd., Richmond 94804. Contact from Dr. R. Szymani, (415) 231-9582.

Sept. 14. San Diego, CA.
General Meeting, San Diego Fine Woodworkers Assn., Chuck Masters on "Tool Sharpening". For details contact SDFWA, P.O. Box 99656, San Diego, CA.92109.

Sept. 17. Los Angeles, CA.
A Day with Sam Maloof at his Workshop, sponsored by The Cutting Edge, 3871 Grandview Blvd., (213) 390-9723.

Sept. 17-Oct. 30. Mendocino, CA.
2nd Invitational Fine Furniture Show at Artisans Guild Store. Entry deadline Aug. 31. Contact the store at P.O. Box 1515, Mendocino 95460, or call (707) 937-5300.

continued on page 38

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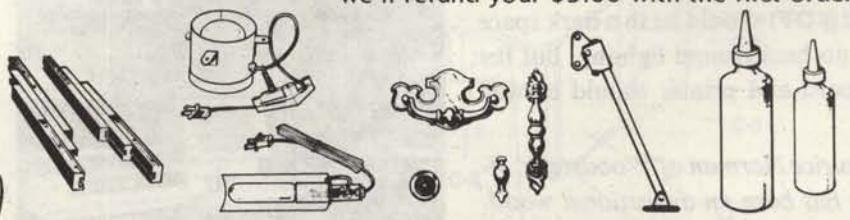

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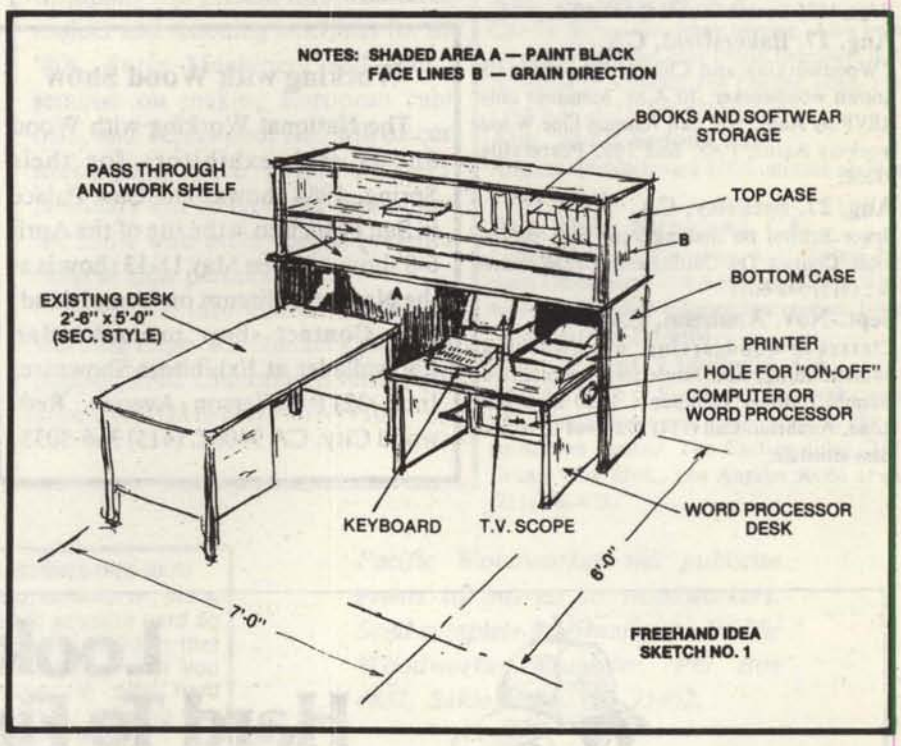
Plywood Computer Cabinetry

by Maurice Norman



About a month ago I bought one of those new-fangled computer word processors. The people that sold it to me knew everything about word processors and computers, but they didn't have a clue about how the machine was to be set up **in my place**, or how to really make the system efficient, **according to my needs**.

So, I did it myself.

I designed and constructed a three-component work center around my existing desk, in one corner of my working office. Unless a word-processing work center is properly set up, it is not easy to work, staring at a television-type terminal all the time. There are some special considerations to work into the center.

First, the television terminal (also called VDT) should be in a dark space with no background lighting, but the keyboard and printer should be well enough lighted for easy working conditions. The desk, of course, must be well lighted for normal, efficient working.

Maurice Norman of Woodstock, Illinois has been an avocational woodworker for many years. He has also taught wood carving and wood sculpture at the Chicago Academy of Fine Woodworking.

The finished Computer Work Station, of oak and oak plywood, consists of three sections.

The results are pictured below.

The three components are the Word Processor Desk, the Bottom Case Backdrop, and the Top Case Bookshelf. The fourth piece is my old work desk. All three components are built of rotary cut American red oak (both 3/4" thick and 1/4" thick) plywood. Only the facing pieces (officially called stiles and rails) and edge strips are solid wood: 3/4" select red oak. Both materials are readily available at most lumber yards.

I'll outline the steps involved in building this computer cabinetry. The

techniques can be applied to any type of plywood cabinetry.

Any woodworking project can be broken down into the same three basic stages: 1) Design, 2) Parts Fabrication, and 3) Assembly. I will go through each stage, step by step, referring to the sketches, cutting schedules and assembly drawings as I go.

Stage 1: Design

After I decide what I wished to build, as in this case, a Computer Work Center, I then establish the overall layout, including the amount of available space. I like to free-hand sketch, usually in perspective, the design as I visualize it. See Sketch 1. It is rough, not intended to be a piece of art. It is simply intended to get the idea down on paper.

A TOP CASE

- A1 Sides — 2
- A2 Top & Bottom Shelf
- A3 Bottom Shelf
- A4 Shelf Back

B BOTTOM CASE

- B1 Sides — 2
- B2 Interior Sides — 2
- B3 Top
- B4 Back Braces — 3

C WORD PROCESSOR DESK

- C1 Sides — 2
- C2 Top
- C3 Back
- C4 Shelf — Bottom
- C5 Shelf — Top
- C6 Side — Shelf

D TRIM DETAILS — SELECT OAK

- D1 Styles — Vertical Pieces — 3/4" x 1½"
- D2 Rails — Horizontal Pieces — 3/4" x 1"
- D3 Edge Strips — 1/8" x 3/4"
- D4 Skid Strips — 3/4" x 1½"

PARTS IDENTIFICATION SKETCH 3

After I rough out the sketch, I can get a feeling as to overall size, etc. Next I make notes on the sketch about special features and particular items. I try to get as much detail into this sketch as possible. This is sort-of my control plan.

Once I complete the overall plan in sketch form, I calculate the size of each component. I note grain direction on the sketch. This is especially important when dealing with plywood, to save a lot of scrap. Remember, when working with plywood you are limited to 4' x 8' sheets.

I sketch out each piece, showing grain direction, size, cutouts and rabbets or grooves, if any. I also get the final dimensions and details down at the same time. Sketching free-hand is easy to do, easy to correct and easy to change. See Sketches 4 and 5.

I identify the type of wood needed as I lay the pieces out. Inner pieces, those that will be painted black, are noted as "fir" because I usually have some scrap Douglas fir 3/4" plywood around.

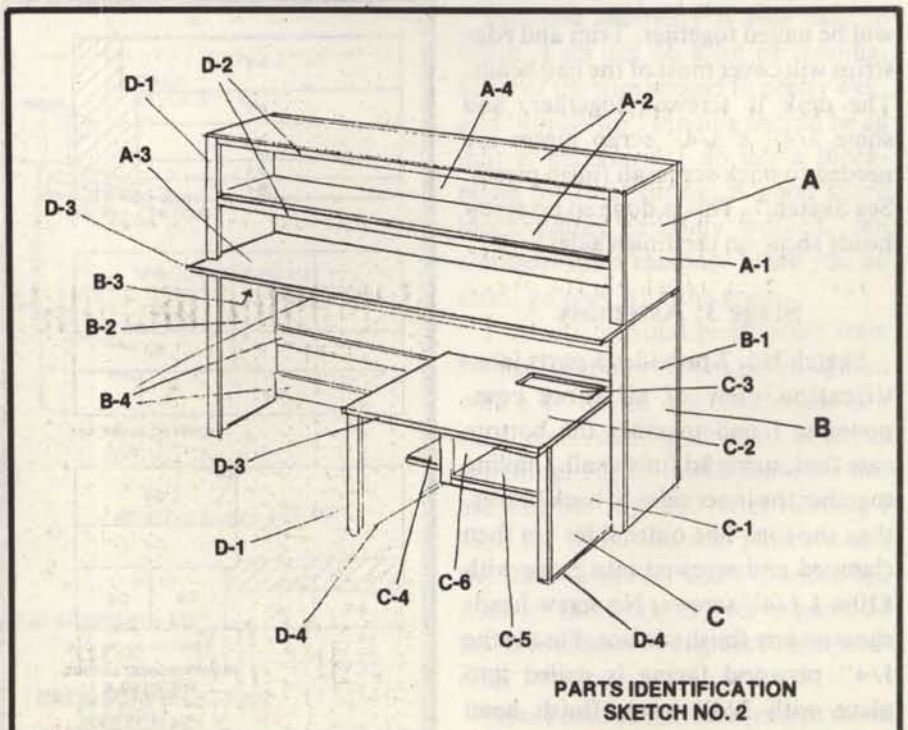
Next, I lay out the plywood pieces, in rough, for sheet sizes. The pieces should be rough cut first, with approximate dimensions, leaving the final clean-cut for later. In layout, remember that the saw cut takes up space too. So allow for the kerf.

Stage 2: Parts Fabrication

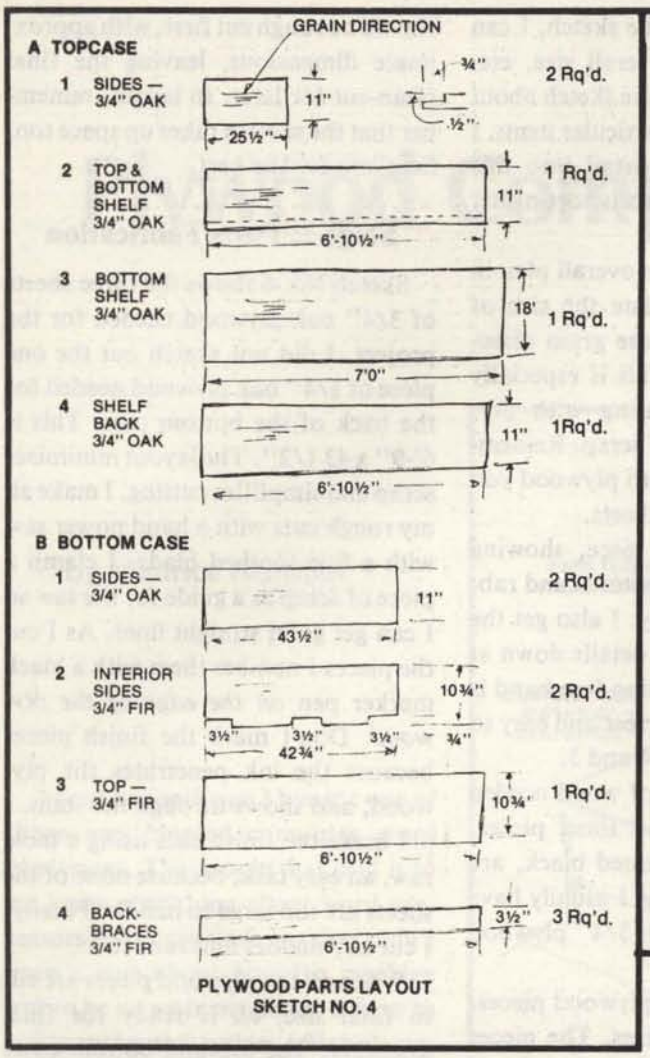
Sketch No. 6 shows the three sheets of 3/4" oak plywood needed for the project. I did not sketch out the one piece of 1/4" oak plywood needed for the back of the bottom case. This is 6'-9" x 43 1/2". The layout minimizes scrap and simplifies cutting. I make all my rough cuts with a hand power saw with a fine toothed blade. I clamp a piece of scrap as a guide for the saw so I can get good straight lines. As I cut the pieces I number them with a black marker pen *on the edge of the plywood*. Don't mark the finish pieces because the ink penetrates the plywood, and shows through the stain.

I make the finish cuts using a table saw, an easy task, because none of the sheets are too large to handle. Finally, I cut any dadoes and rabbets.

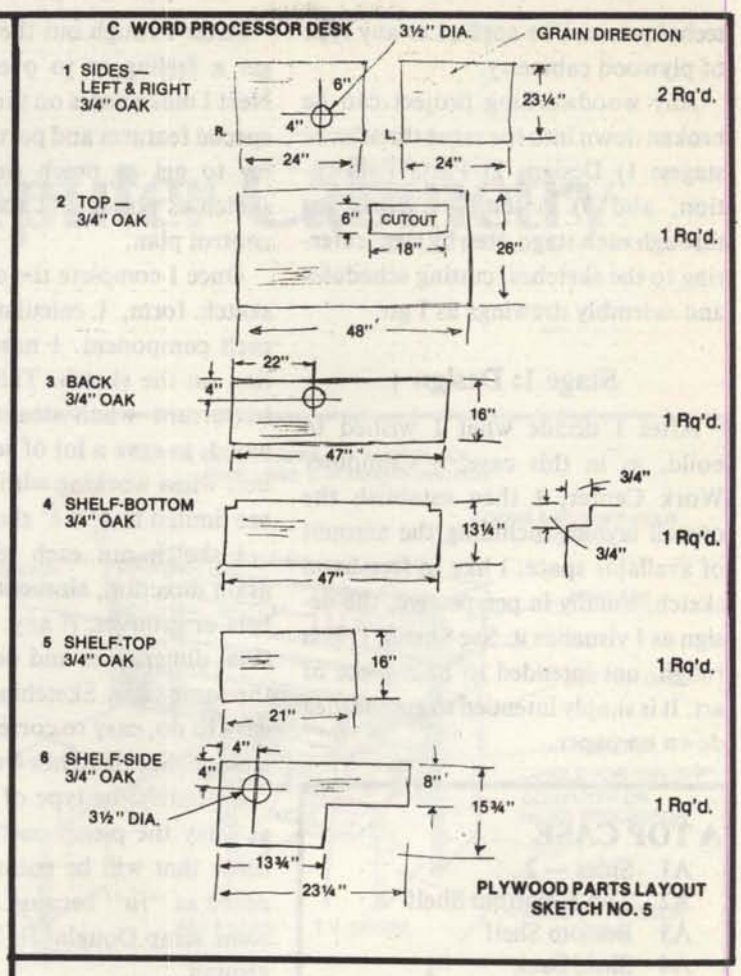
When all the plywood pieces are cut to final size, all is ready for final assembly. The top and bottom cases



PARTS IDENTIFICATION SKETCH NO. 2



PLYWOOD PARTS LAYOUT
SKETCH NO. 4

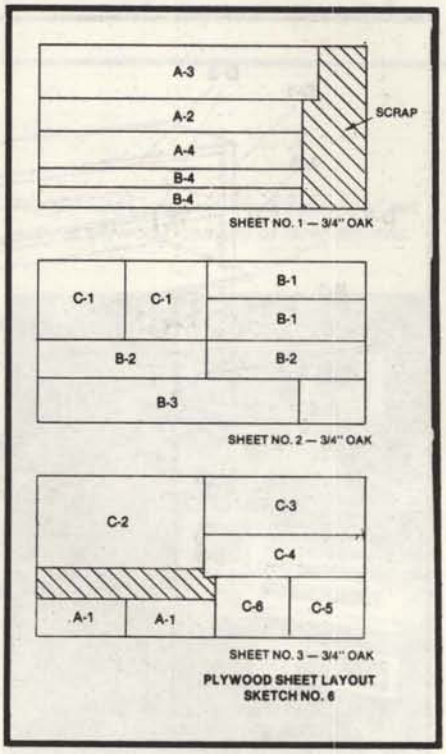


PLYWOOD PARTS LAYOUT
SKETCH NO. 5

will be nailed together. Trim and edge strips will cover most of the nail heads. The desk is screwed together, and some 3/4" x 3/4" scrap pieces are needed to back-screw all finish pieces. See Sketch 7. This is done so no screw heads show on the finish sides.

Stage 3: Assembly

Sketch No. 2 provides a parts identification view of all three components. I nail together the bottom case first, using 8d finish nails, nailing together the inner sides to back braces, then the top. The outer sides are then clamped and screwed into place with #10 x 1 1/4" screws. No screw heads show on any finish surface. Finally the 1/4" plywood facing is nailed into place with 3/4" long, finish head brads.



PLYWOOD SHEET LAYOUT
SKETCH NO. 6

The top case is nailed together next, again using 8d finish nails. Almost all of the nails are covered with trim so the nails do not have to be set. ("Setting" a nail is to drive the nail head about 1/8" below the surface of the wood, by using a nail set, a tool specifically designed for this process.)

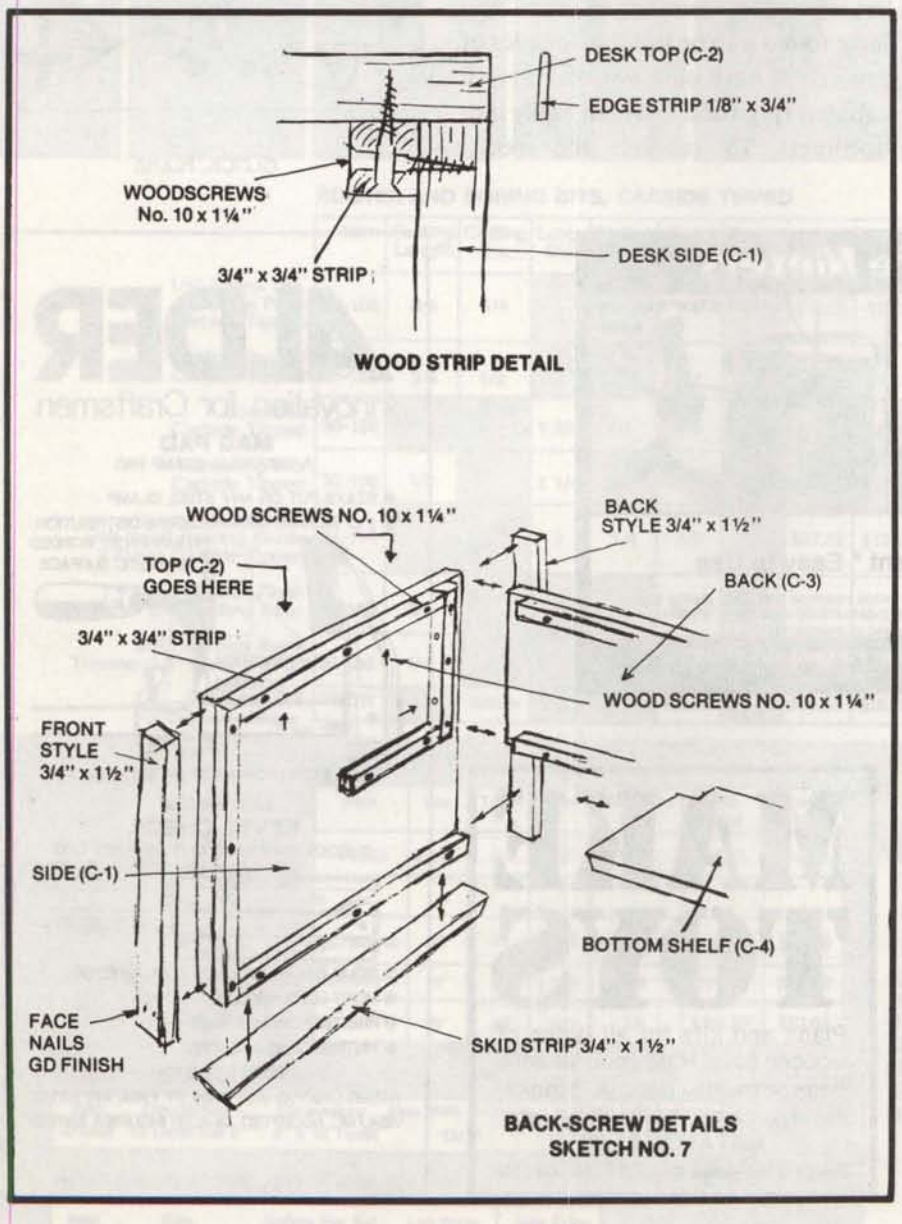
The desk is not nailed. It is screwed with #10 x 1 1/4" countersunk slotted wood screws. I use a 3/4" x 3/4" wood strip on each inside corner. An age-old method of furniture fastening, this is very easy to do. I like the combination wood drill and countersink bits the best. They work especially well for the back-fastening with the 3/4" x 3/4" strips.

All three components are nailed or screwed together before I begin any trim.

I use two types of trim. The face pieces on the front and back face openings of the cases and desk are

called stiles and rails (stiles are vertical members, rails horizontal). Edge stripping is used to finish-edge the plywood desk top and the top case work surface.

All trim is kiln dried red oak. The stiles and rails are 3/4" stock, purchased in random length, random width pieces, and cut down, first to width (again, see sketch for sizes) then to length. All facing is a one-at-a-time cut-and-fit operation. Measure each piece carefully, making sure all joints are nice and tight. I place the stiles, the vertical trim in first. These go from out-to-out dimensions, with the rails being fit in between. All are face nailed with 6d finishing nails, set, and then filled when finishing. A good well-matched filler will completely hide the nail holes. I glue the face pieces sparingly and carefully. Any glue that squeezes out will mar the finish. Any glue that gets on my fingers and then smears on the wood also mars the finish. The finish on this project will be stained and varnished, and glue does not take stain, so white blotches show. The blotches can be sanded off, but it must be done very carefully, since the finish surface layer of the plywood is less than 1/16" thick. This doesn't leave much room for sanding down.



After the face pieces are in place, nailed and set, the final job is to apply the edge stips. I cut scrap 3/4" oak into 1/8" thick strips. The corners are mitered. It's tough to miter 1/8" stock, so I sand in the miter. The strips, after fitting, are glued (sorry, here it's necessary, so just be careful), and nailed about 6" on center with 1/2" finish brads.

When working with oak, all nails must be pre-drilled. I use a drill about the size of the nail shank, which limits the holding power to be the nail head. This works well and will result in no failures if proper nail spacing is used. Face-nailing stiles and rails should be 8" to 10" on center, double nailing where possible. If glue is used, the glue will do the work, and the nail will only hold the trim in place until the glue sets, which is why the holding power need only be the head.

When nails are pre-drilled using the right drill, there will be no splitting. Another nice thing is that you can get very close to a joint or miter doing it this way.

Finishing

Plywood cabinetry is very easy to finish. I do not do a lot of sanding. Most of the trim should fit pretty well, and "touch-up" sanding should be all that is necessary. I do use a block-plane for final fitting. A good sharp block plane, carefully worked, can eliminate most sanding. When you do sand, go only with the grain.

I use a fruitwood penetrating stain for my computer center, painting it on with a 4" brush, one component at a time, then rubbing with lots of paper towelling. Paper towels leave no lint the way old rags do. After rubbing I look for blemishes and places where the stain didn't hit and I touched up, then let the work dry for a good 24 hours in at least 70 degrees F. temperature.

Next I coat all surfaces (except those which will be painted black) with a

thinned down shellac. I thin the shellac down with alcohol, about two parts shellac to one part alcohol. This dries in about one hour. Ventilate during this operation, otherwise you'll have a cheap high. I shouldn't have to mention that you don't smoke during this application, either. After the shellac, I fill the nail holes with old-fashioned "Swedish Putty," doped up with the stain color I'm using (in this case, fruitwood). I don't fill before the shellac because the filler would leave a smudge around the nails.

A light rub with No. 00 steel wool and all that's left is the final varnish. Two coats should do it, with light steel wool between coats. I use a third coat on the work surfaces: the desk top and pass-through shelf in the top case.

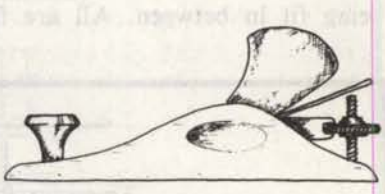
Finally, I paint the inside of the bottom case a dull black.

The back view of the Work Station shows the pass-through, and the 1/4" oak plywood back.

Summary

I have used this type of plywood cabinetry for a number of years, and have found it to be suitable for a lot of projects. I have built bookcases, wall cabinets (plywood doors fit easily into openings), TV cabinets and special cabinets like the one I just described. Once built, they are durable. Plywood, by nature, does not expand and contract with moisture, so there are no splitting and warping problems. The solid wood face pieces that I do use are small enough so the moisture problem is greatly reduced. Actually, in most cases, it's completely eliminated.

A neat thing, too, is that the cabinets can be built free-standing. I can take them with me when I move, or when I change the room around. Built-ins, unfortunately, are there forever.



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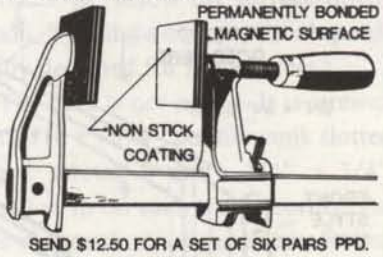

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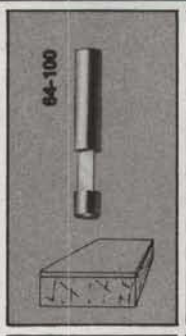

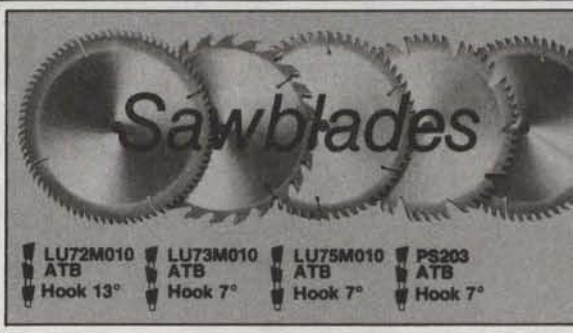

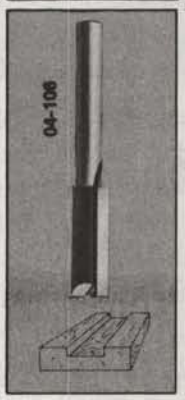

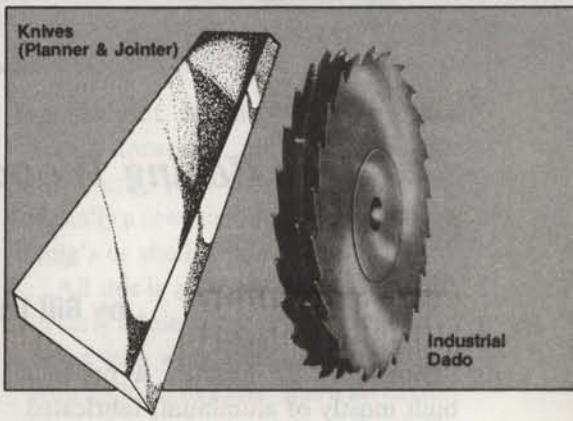

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THE FOURTH CORNER

The Boeing Wood Model Shop

by Bill Farnsworth

Boeing's 757 jetliner, a product built mostly of aluminum, fabricated largely by computer, and virtually wood-free seems a strange topic for a woodworking magazine. Yet amidst this monumentally large-scale, high-technology industry I found a few modest places tucked away where folks still carry sandpaper in their hands and a draw-knife stuck in the pocket of a shop apron. Such a place is Boeing's model shop at Renton, Washington.

Three million individual parts held together by half a million fasteners go into a Boeing 757 jetliner. Each plane's computers, displays and controls are connected with 66 miles of wire, systems which are said to be more sophisticated than those on the space shuttle. The 757 project alone has employed 15,000 engineers, 15,000 engineering support staff, a total of 10,000 other Boeing employees and 10,000 additional subcontractor employees, with estimated start-up costs between one-and-a-half and two-and-a-half billion dollars.

Yet long before the first titanium rivet was put in place and the first wire strung, Old-World style craftsmen were busy in Boeing's model shop, hand-carving the very first 757's out of magnolia wood—at 1/200th to 1/20th scale, I should add.

The 757 began as an updated, upscale version of the Boeing 727. Yet its developmental process involved 339 rejected designs before the new plane's final form was reached. The construction of scale models played an important role in this transformation.

Such scale models serve a number of functions. As Boeing model shop supervisor Rudolf Achtenberg describes the process, initially these models act as a feedback loop to the engineering department. "As an airplane develops, for example, as an air conditioning system is modified, the overall shape of the plane changes," he says. "When various systems are rearranged, and as wind tunnel results are obtained, new scale models must be made to reflect the new overall look of the airliner."*

Because the form of the 757 radically departed from that of the 727, about six updated master models had to be made.

Although scale models are a useful tool in the design and engineering aspects of a jetliner's development, they serve primarily as a promotional and marketing device. When the potential market for airplanes which cost 50 million dollars apiece is limited to only 300 airlines worldwide, sophisticated salesmanship becomes as important as state-of-the-art engineering.

A client airline like Eastern or United, fronting 50% down for a fleet of jets that hasn't even gone into production, wants to see what that plane will look like in three dimensions before it decides to buy. Even now that the first 757's and 767's have been certified and put into commerical use, other prospective buyers are provided scale models detailed with their airline's livery, or cutaway models demonstrating cabin layouts, color-coordination of the decor and other interior design possibilities tailored to their particular needs.

Additional models are put on display at trade shows, airport ticket counters and corporate headquarters for the client airline's own promotional ends. With half a dozen different commercial airliners currently in production, the Boeing model shop is constantly busy filling all these requests.

It probably comes as no surprise that these numerous copies of models

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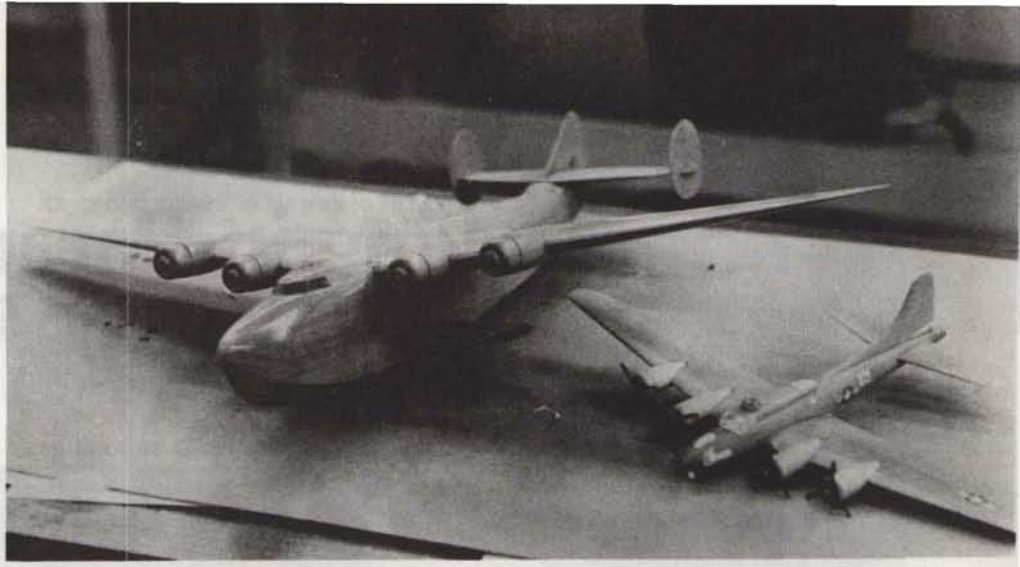
Bill Farnsworth is a custom cabinet/furniture-maker and owner of Lens and Hammer Woodworks, 4349 Leary Way NW, Seattle, WA 98107. Replies to the Fourth Corner and information of interest to woodworkers in the Northwest should be sent to The Fourth Corner, Pacific Woodworker, PO Box 4881, Santa Rosa, CA 95402.

* Boeing's wood shop models are intended mostly for determining overall aesthetics, and are not used in the wind tunnel. Special metal scale models, often just a wing or nose section equipped with electronic sensors, are used for aerodynamic testing.

The magnolia wood models at the Boeing Aircraft shop have thousands of plastic descendants.



are mass-produced by outside vendors once Boeing has finalized its designs. Nevertheless, the master models are first carved and turned from magnolia wood, chosen for its high density and ability to be worked out to thin trailing edges. From these master models fiberglass copies are molded, then finally quantity plastic reproductions are made.

During my visit I saw many shelves of plastic 707s, 727s, 737s, 747s, 757s and 767s lying about the model shop in various stages of painting and detailing. Just one display case in a corner of one room contains all of the wooden master models the Boeing craftsmen have hand-made over the years. On display are the company's early bi-planes, World War II bombers, fighters and flying boats, and the most recent commercial jetliners.

These models are exquisite. They are "Scaled to tolerances of 1/100th of an inch" according to Art Miller, who has been crafting them for the last 12 of his 16 years at Boeing. During my visit, Art was in the process of dimensioning a board with a milling machine because "No surface planer is accurate enough." A hundredth of an inch is acceptable for a model not intended to fly, although sloppy by some of the company's other standards. Tolerances for the twenty-foot-wide cabin assemblies being joined together across the street must be within a few thousandths of an inch. I felt relieved that I was not responsible for cutting jet parts on my own shop table saws.

Although the real aircraft are either painted with special urethane and epoxy paints or left largely unpainted (to reduce precious pounds from the total aircraft weight), the Boeing models are meticulously finished with colored lacquers, hand-rubbed between coats with 600 grit paper. The final detailing and livery usually involve a combination of transfer decals and painstaking hand-work. As supervisor Rudy explains, "Trying to put a flat decal on certain curved surfaces of a plane model is like wrapping an orange in newspaper," so considerable hand-painting is required.

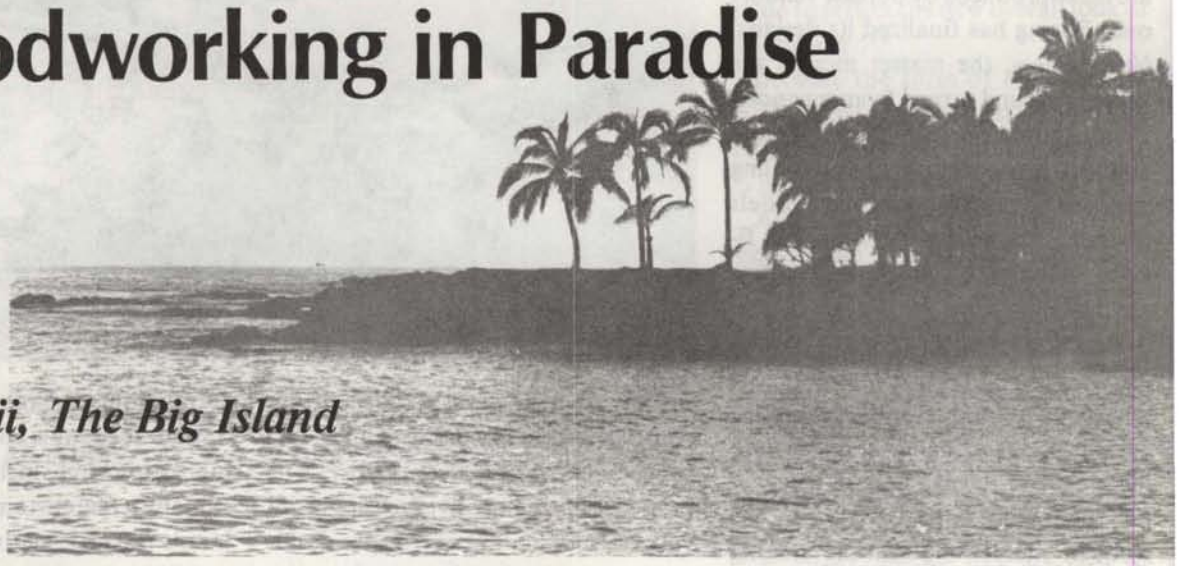
The model shop at Renton is duplicated at Boeing's aerospace division plant in Kent, Washington, where most of the classified, military work is done. There are perhaps a dozen other sundry woodworking shops scattered throughout Boeing's several Puget Sound locations, building full-scale mock-ups, jigs, patterns, and occasionally a few custom furnishings for a king's or sheik's private jet.

All this is a far cry from my efforts in early adolescence trying to cut balsa wood into wing struts and stabilizers with an X-Acto knife. But it is reassuring to know that even in such a high-technology industry as aircraft manufacturing considerable woodworking is still going on.

So the next time you are cruising at 60,000 feet and 600 m.p.h. in a gleaming modern aviation miracle, think of magnolia wood.

Boeing's scale aircraft are smoothed with 600 grit sandpaper and largely hand painted.

Woodworking in Paradise



Hawaii, The Big Island

by Jean M. Davis and Charles Harris

The Big Island of Hawaii has seen woodworkers from the very first people to touch its black sand beaches. Jonathan Jens of The Grass Shack crafts store tells of early technique with the kakui nut.

"Jewelry made from kakui nut shells was worn only by royalty. They drilled a tiny hole in the nut and buried it in an anthill. After a few months the ants had cleaned out the greasy nut. Then the Hawaiians polished the shell, using the abundant volcanic rock, coral and sea urchin spines for progressive smoothing. The blossom of the breadfruit tree served as the final polishing cloth."

Fortunately, today's Big Island woodworkers have more up-to-date abrasives at their disposal, nor is their output restricted to royalty.

In this issue Pacific Woodworker *continues its coverage of Hawaiian wood crafts with a survey of woodworking on The Big Island, Hawaii. We covered woodworkers on Maui in Issues 7 and 8. Next stop: Oahu?*

There are certain drawbacks to woodworking on the island of Hawaii, however. Dennis Kincaid describes one problem: "I must use koa, as it is a 'local wood,' but it is difficult to work with. It dulls blades rapidly, and that shifting grain pattern which makes it such an attractive wood also makes planing nearly impossible." Bill Irwin adds, "There are no commercial lumber drying kilns on Hawaii. I buy my kiln-dried koa from Seattle, 5000 miles away, and they get their koa from a spot not 20 miles from here!"

Eve Bailey — Tikis

The tiki (right) is a traditional Hawaiian art form that Eve Bailey learned from a Hawaiian friend. Eve locates native woods in a forest not far from her home, on the slope of the unpredictable Kilauea volcano. She then carves the tikis from fresh logs with only a few hand tools: chisels, gouges and mallet. Eve came to Hawaii in 1972, after studying art at the University of Washington.

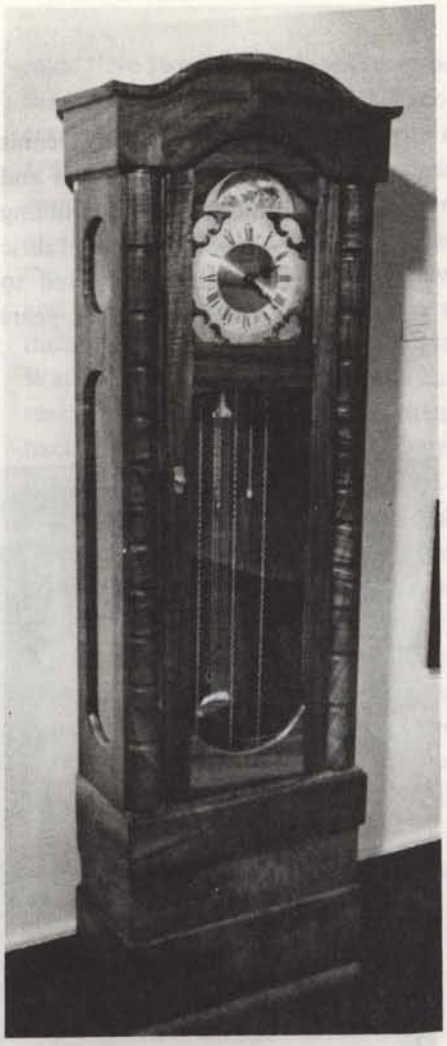
Indeed, koa was prominent among the woods on display recently at the Volcano Art Center on the rim of Kilauea Volcano, in the Hawaii Volcanoes National Park. Especially impressive there were works by Bill Irwin, Ray Pelton and Ron Kent.

text continues on page 23

photography by Chod Harris

Raymond Wolfe

Raymond moved to Hawaii in 1973, after training as a cabinet-maker. Since then he has turned from cabinet making to tables, chairs and especially clocks. He builds clocks of all sizes from wall and mantle clocks to grandfather clocks of koa. His "Koa Grandmother Clock" (right) was on display at the Volcano Art Center

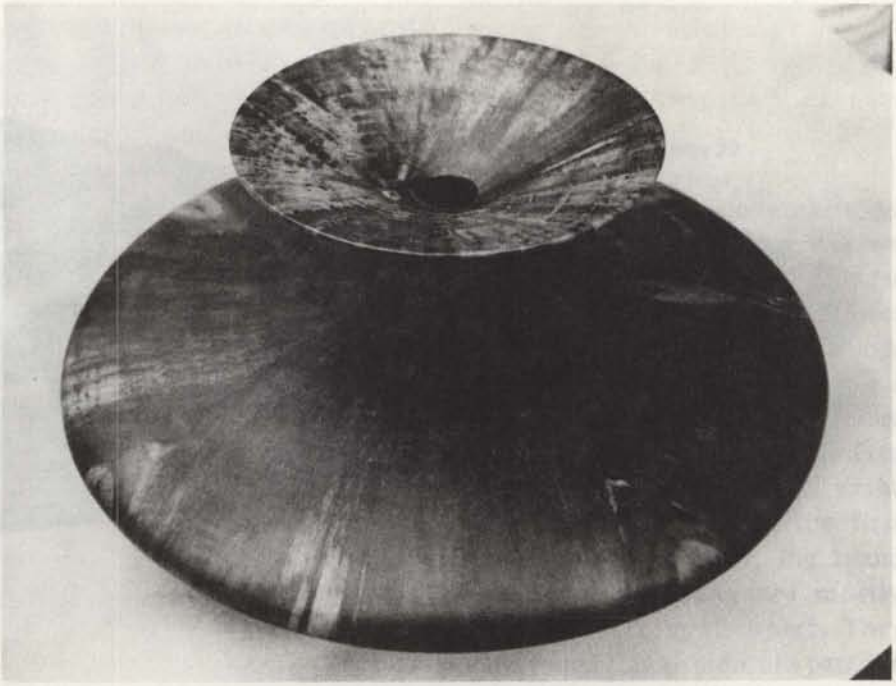


Paul of Hawaii

Lighter, exterior wood contrasts with the dark interior wood in this milo wood bust (left). The face is Paul's vision of the mixed races of Man, some time in the future, with Caucasian pointed chin and Oriental cheekbones. The work was for sale at Kealakekua's Grass Shack.

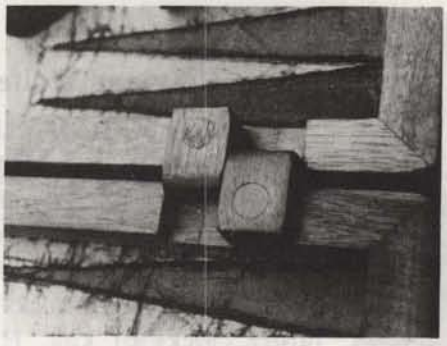
Ron Kent's Turnings

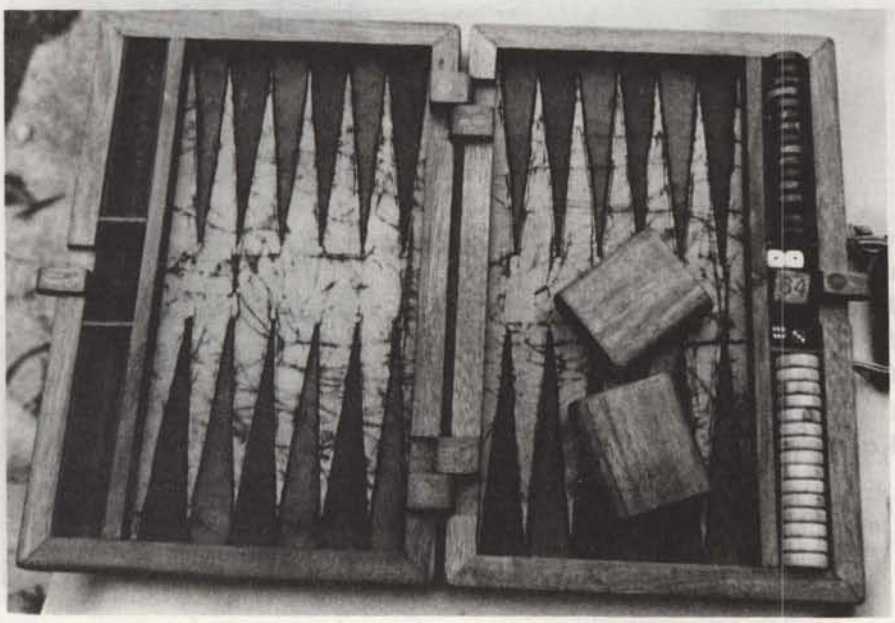
Ron Kent turns Norfolk Island pine logs into graceful bowls and bottles (right). A stockbroker who works wood as a hobby, Ron actually resides on the island of Oahu, but his exquisite work was among that we admired at the Volcano Art Center. *Pacific Woodworker* will have more on Ron Kent and his finishing techniques (below) in a future issue.



Dennis Kincaid

The koa backgammon set by Dennis Kincaid features wooden hinges and matching koa dice cups and doubling cube, complemented by a batik fabric playing surface. Dennis moved to Hawaii from California eight years ago.





Bill Irwin's Laminates

Among the most striking wood exhibits at the Volcano House were cutting boards and rolling pins by Bill Irwin (see photos left and right). Bill has been experimenting with laminated designs. "I laminate thin strips of wood in contrasting colors to form graphic designs of flowing, rhythmical, and intertwined elements . . . a vocabulary using lines, dots, and basic geometric shapes to make graphic statements in solid wood."

Bill came to Hawaii in 1976, after a dozen years woodworking on the mainland. His experience includes carpentry. cabinet work, and contracting. In fact, he once made full scale wood mock-ups of the Space Shuttle for NASA.

Bill's work has appeared in juried shows in Hawaii and Washington state. His photographic skills have helped him sell his work in art and crafts galleries throughout Hawaii.

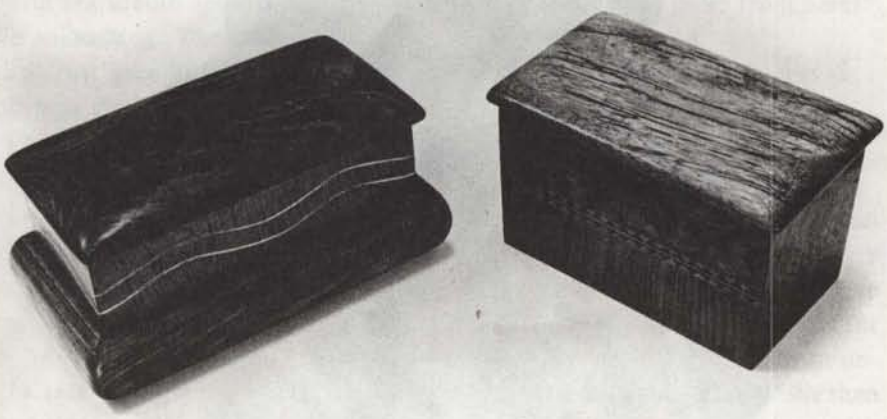


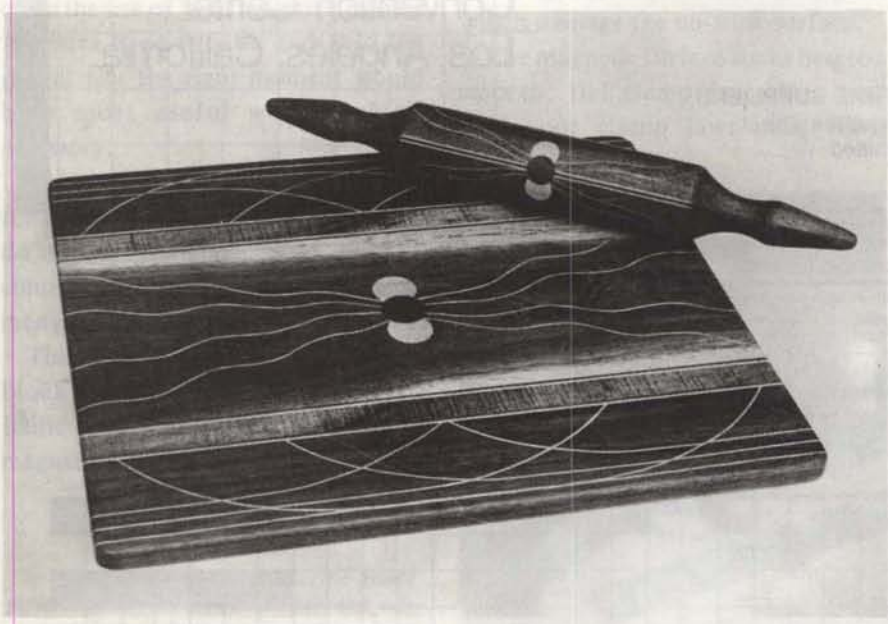
photo courtesy of Bill Irwin

Ray Pelton's Limboxes

Ray began experimenting with drawers in tree limbs about 10 years ago, in the back of an old winery in Yountville, California. His designs evolved into the Limbox (left), now a registered trademark. Encouraged by his success with these boxes, Ray moved to Hawaii with his family, and lived in a tent while they constructed their solar wood drying kiln. Now Ray raises his own food on his rural property, using the Limboxes as a "cash crop." Since public electricity lines don't reach Ray's remote farm, he runs his power woodworking equipment off a generator.

Ray cures tree limbs in his solar kiln and then cuts them into interesting shapes "Each piece is cut so that its uniqueness becomes the curious personality of an exterior Limbox," he says. "No two Limboxes will ever be the same." Ray next fires up his generator and bandsaw, equipped with a 1/6" blade, to trim the limbs into their component parts. The next day, when all the glue joints are dry, he shapes the drawers with a grinder, bandsaw and sanding tools. The finish is a thorough soaking until saturated in Watco Danish oil, Ray wipes the excess oil off the parts and sends them back to the dryer for a few days of curing, followed by a final buffing.

"Using sculptural qualities and textures inherent in natural forms, I try to isolate a complete personal expression without losing the original character. My work is vitally important to me. Knowing the joy Limboxes give so many people has supplied me with the enthusiasm to continue with the idea," Ray writes in a brochure about his work.



text continued from page 20

The Big Island woodworkers we talked to, and whose works we viewed, represent a diversity of styles and techniques; yet they have some things in common. All use local woods whenever possible—even if they have to import it! Using koa and other Hawaiian woods is a fact of Hawaiian commercial life in order to sell to the tourist trade. And like the first Hawaiian woodworkers, Big Island woodworkers today are mostly "refugees" from elsewhere. They have found Hawaii more of a paradise than life on the mainland.

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H ☐ Sales
I ☐ Other _____

Your Name, First, Last
Your Title
Name of Company
Street Address
City, State, Zip
Area Code & Phone Number

A Pacific Woodworker Test Report

The Alder MAG-PAD

How often in clamping do you wish you had a third hand? You need one hand to hold the pieces in alignment, the other to tighten the clamp, and a third to hold a block of wood between the clamp and your work, to prevent scarring. You fumble and grumble and finally get the clamp tight, while the excess glue leaves a sticky trail across the wood.

You could permanently glue a pad or block of wood to your clamp jaws, but you reduce the maximum capacity of the clamp if you do. No doubt your very next woodworking job will require the use of just that extra length. An extra hand to grab and hold the pad at just the right moment would be a most useful woodworking accessory.

Alder's MAG-PAD is no substitute for a true third hand, but MAG-PADs do stick to steel clamp jaws, and can eliminate that need for a third hand in many gluing operations.

The MAG-PAD is a 2-inch square block of Canadian-manufactured Baltic birch ply, faced with a slightly magnetic surface on one side and a slippery, no-stick coating on the opposite side. You stick the magnetic side to your clamp jaws, align and tighten. The size and flexibility of the pad distributes the pressure to the work, reducing mars.

The Test

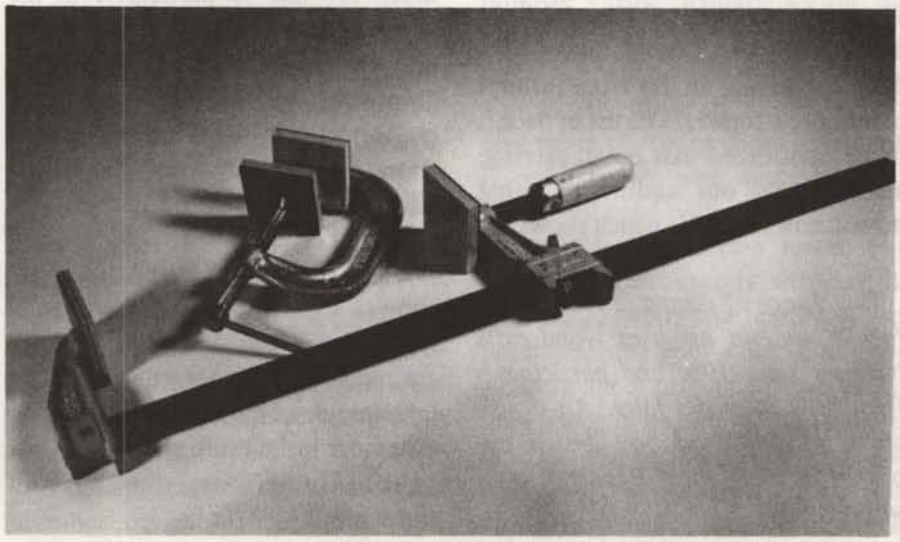
The non-stick surface works well. *Pacific Woodworker* applied a MAG-PAD directly to a wet, glue-covered surface. When the glue was completely set, the MAG-PAD fell right off when the clamp was released! But avoid epoxy and solvent-based glues which damage the no-stick surface.

The magnetic surface sticks best to a smooth, flat clamp face. You may find your clamp jaws need filing before the MAG-PAD sticks well. If irregularities or sawdust weaken the magnetic bond between pad and clamp, the pad falls off at the slightest touch, a marginal "third hand." If you encounter this problem, try smoothing your clamp jaws on a disc sander.

The MAG-PAD works with any steel-jawed clamps, C-clamps, bar clamps, etc. Of course, it won't stick to aluminum or wooden-faced clamps. Alder sells the MAG-PAD at 6 pairs for $12.50 postpaid, available from Alder Limited, P.O.Box 7588, St. Paul, MN 55119.

A couple of other Alder products were not tested by *Pacific Woodworker*, but they work the same way as the MAG-PADs. The Mini-MAG-PAD, 1-inch on a side, should be especially useful for model makers and miniature workers. Stick the pads on a steel surface, and they hold parts in close alignment for gluing, without excess clamping force. Alder also makes the VISE-PAD, a 1x6-inch pair of similar pads for steel-faced vise jaws.

But no matter what you use to protect your wood, whenever the pad falls, it will roll to the most inaccessible spot in the workshop, which is under the workbench in my shop. MAG-PADs are no exception to this rule.



The Alder MAG-PAD is marine-grade plywood with one non-stick side and one magnetic surface. It clings to smooth jaw faces on C-clamps, bar clamps, pipes clamps, any steel-jawed clamp.

Marketing

Getting Started in the Crafts Show Business

by Ray Jones

If you are one of many wood hobbyists who would like to turn your hobby into a money-making operation, possibly even a fulltime profession, selling your work at crafts shows could be a means of attaining that end.

To many people, the phrase "working the craft circuit" conjures up images of sleazy characters hawking cure-all remedies from the backs of horse-drawn wagons, or of little old ladies selling styrofoam and yarn doodads from folding card tables. But to many thousands of craftspeople in this country, the crafts business is just that—a very serious business.

Getting started in the crafts business is not as simple as it may seem at first. There is more involved than just taking your work to a show, setting up a table and taking money from throngs of happy customers. The list of details to be considered can be staggering: how to find out about upcoming shows, how to decide which shows are best, how to apply for them, how to decide what to make and how many, what prices to charge, how to display your work, how to handle taxes and necessary permits, and so on.

On the other hand, with careful planning, getting started need not be so overwhelming. This article will discuss several of the steps you need to take to be successful.

Finding Shows

The first step is to find out about shows in time to apply for them. Most show advertising is aimed at potential crafts buyers, rather than sellers. By the time you see or hear such ads, it is much too late to participate in the show. There are, however, several publications which list future shows. Two which are particularly useful for crafts workers living in the Western states are *West Art* and *The Crafts Fair Guide*. (See box for addresses of these and other sources.)

But the best way to find out about shows, as with most other craft-related questions, is to ask working craftspeople. Most are willing to share information about shows and they can give more insight into shows than can be obtained from any written material.

Choosing the Best Shows

Deciding which shows to apply for requires careful consideration. After finding out about upcoming shows, the next step is to obtain application forms for those which seem promising. When writing to a promoter to request an application, it is always a good idea to enclose a self-addressed, stamped envelope (SASE). Many promoters will request this in their advertisements.

After you have read the promoter's pitch, participants' evaluations of last year's show, and perhaps spoken with one or more of those participants, several other criteria must also be weighed.

One of these is cost of the show versus anticipated return. Crafts show entry fees range from a few dollars to several hundred. In addition to the entry fee, some promoters charge a commission, usually 10% of the participant's gross sales. Craftspeople often react negatively to commissions, but they do have one redeeming feature. Commissions give the promoters extra incentive to get the buying public to their shows through advertising, entertainment, or other attractions.

Other factors you should consider when figuring the cost of doing a par-

Ray Jones of Granada Hills, California has run his own woodcrafts business since 1980 and participates frequently in crafts fairs. An article about his all-wood box design appeared in Issue 10 of Pacific Woodworker.

ticular show include the cost of gasoline required to drive to and from the show location, the cost of motels and meals, and the time spent driving (when you might otherwise be producing woodwork in your shop).

These other costs can be appreciable, easily adding up to more than the entry fee. So it makes sense to concentrate on local shows, if they are available and if expected sales are at least equal to those of distant shows less the cost of traveling.

Consider also the physical environment of the show. Indoor shows have the obvious advantage of being independent of weather conditions. They may also allow you to leave your display set up overnight, rather than having to pack up your wares and dismantle your booth each night. However, booth spaces may be smaller, lighting may be required and the promoter may charge the public to get in. Some crafts show participants believe that admission fees keep some customers away. Such fees, however, offer the same advantage as commissions—extra incentive for the promoter to induce customers to visit his show, thus increasing his profits.

Outdoor shows are generally free to the public. They may be held on streets, parking lots, sidewalks, in parks, fairgrounds, college campuses or other locations.

Sources of Information on Crafts Shows

West Art, PO Box 1396, Auburn, CA 95603, $10/year (24 issues). Published twice monthly in newspaper format, *West Art's* "Time to Show" section lists upcoming shows. The section lists both fine arts and crafts shows, with show dates, entry deadlines, and the name and address of who to contact for application forms. The listings are quite extensive and usually are published well in advance of entry deadlines. Remember, though, that these show listings are paid for by the show promoters and are designed to "sell" the shows to craftspeople. The promoters' claims must be viewed with the same skepticism with which you would view advertisements for any product or service.

The Crafts Fair Guide, PO Box 5062 Mill Valley, CA 94942, $25/year (4 issues). *The Crafts Fair Guide*, on the other hand, presents craftsworkers' evaluations of shows. These evaluations are summaries of questionnaires filled out by participants in a given show the previous year. Each evaluation lists the name of the show, its location, date, description of the fair site and weather, estimates of attendance, and the name and address of the promoter. It also contains participants' evaluations of the show and the promoter, how each rates the show for sales and enjoyability, and participants' gross sales. In the back of each issue, an information section lists dates, fees, application deadlines, and other information for the current year.

By carefully reading and interpreting information presented in *The Crafts Fair Guide* evaluations, one can get a pretty good idea of what each show was like the previous year.

The Goodfellow Review of Crafts, $10/year (6 issues) from PO Box 4520, Berkeley, CA 94704 includes craftsfair listings by geographic region, including information on what, where, when, deadlines, costs, commissions, and attendance anticipated.

And *The Crafts Report* a newspaper, $15.75/year (11 issues) from PO Box 1992, Wilmington, DE 19899 lists shows and fairs by state.

Finally, *Pacific Woodworker's* Calendar & Announcements lists some crafts fairs and deadlines as well.

What's Needed to Get In

After deciding which shows you want to participate in and obtaining application forms for them, the next step is to complete those appications and return them to the promoters, along with all required materials. For most quality shows, merely applying and paying the entry fee does not guarantee acceptance. For many shows, more craftspseople apply than there are spaces. Competition for available spaces is keen, especially in shows which have reputations for being high in sales.

Having high quality work, unfortunately, is no guarantee of acceptance. The difficulty lies in *showing* the quality of your work to the promoter. The highest quality shows have juries of professional artists or craftspeople who decide which applicants will be accepted. The jury's only contact with each applicant's work is through the photographs or slides submitted with the application. Thus, it's extremely important to have high quality photos.

Most applications request a certain number of photos or slides. This number varies, usually within the range of three to six. Some forms request slides only, others request photos only, while still others will accept either photos or slides. Eventually, craftspeople who apply to many shows will need both.

Wood is not an easy medium to photograph accurately showing its true color, depth and texture. When photographing your work, take good close-up shots of single pieces rather than trying to show a variety of pieces in one photograph. Lighting and background are also very important. Some craftspeople find it worthwhile

to pay a professional to photograph their work. Others would rather experiment until they obtain acceptable photos of their own. In either case, sufficient time should be allowed to retake photos, if necessary, before the application deadline.

Most applications also request photos of your display, along with a description. It's a good idea to bring a camera along, at least to your first few shows, until you have satisfactory display photos. For the first application, the display may have to be photographed in the backyard or at a local park.

Not all shows are juried. Some promoters simply judge each applicant's work to be acceptable or non-acceptable as applications are received. They fill their available spaces on a first-come, first-served basis. For these shows, it is best to apply as early as possible.

For juried shows, however, there may be no advantage to applying any earlier than necessary to meet the deadline. The application instructions should be read carefully, or the promoter contacted, to determine the jury procedure. Applying to many shows months in advance can tie up a lot of money in entry fees, since many shows require the entire fee with the application. These checks are usually cashed on receipt, and a new check is written if a refund is necessary. Other shows require only a screening fee ($5-$15) with the application; this screening fee is not refundable.

In addition to fees, photos of work, and photos or descriptions of displays, some application forms request one or more of the following: a photograph of the craftsperson, a list of past awards and shows participated in, a resume, black-and-white photos of the craftsperson demonstrating his/her work (for promotinal purposes), and the price range of the items to be offered for sale.

Permits

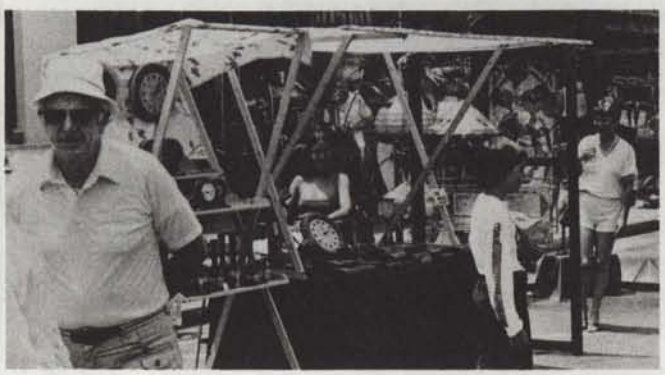
At most shows, exhibitors must have one or more permits or licenses. These should be indicated by the promoter on the application form, along with the names of the agencies which issue them.

Crafts show participants are expected to collect and pay state and local taxes. Some include sales tax in the price of their work, others add it on at the time of sale. The name of the permit which allows a merchant to collect sales tax, and the agency which issues it, vary from state to state. In California, the agency is the California State Board of Equalization, and the permit is the Seller's Permit. This Seller's Permit assigns the retailer a Resale Number.

Retailers are expected to pay collected taxes on a monthly, quarterly, or yearly basis, depending upon their sales volume. One advantage of the Resale Number is that it allows woodworkers to buy materials which will later be resold as finished products without paying sales tax on them. Some suppliers even give their resale customers a discount.

As with all tax matters, accurate records must be kept. These should include gross sales and taxes collected. Taxes paid on items purchased for resale must also be recorded, as these may be deducted from sales taxes owed the state.

Some states require a temporary resale permit from non-residents, since the sales taxes collected within a given state must, of course, be paid to that state. At shows which draw a large number of out-of-state craftsmen, sales taxes may be collected at the show by representatives of the state agency.



A crafts fair in full swing (Hermosa Beach Fiesta de Las Artes, California).

In addition to state permits, city permits may be required. Often these city permit fees are included in the show entry fee, and the promoter takes care of the paper work.

Conclusion

Finding out about, applying to, and gaining entry into shows are only part of getting started in the crafts show business. Designing and building your display, pricing your work, dealing with customers, and handling money are also important aspects of this business. I will discuss these issues in a future issue of *Pacific Woodworker*.

WHERE DO YOU GO FROM HERE?

Let's face it. Being in the manufacturing industry today can feel like a balancing act. Stand still for too long and you may fall. So what choice do you have but to go forward?

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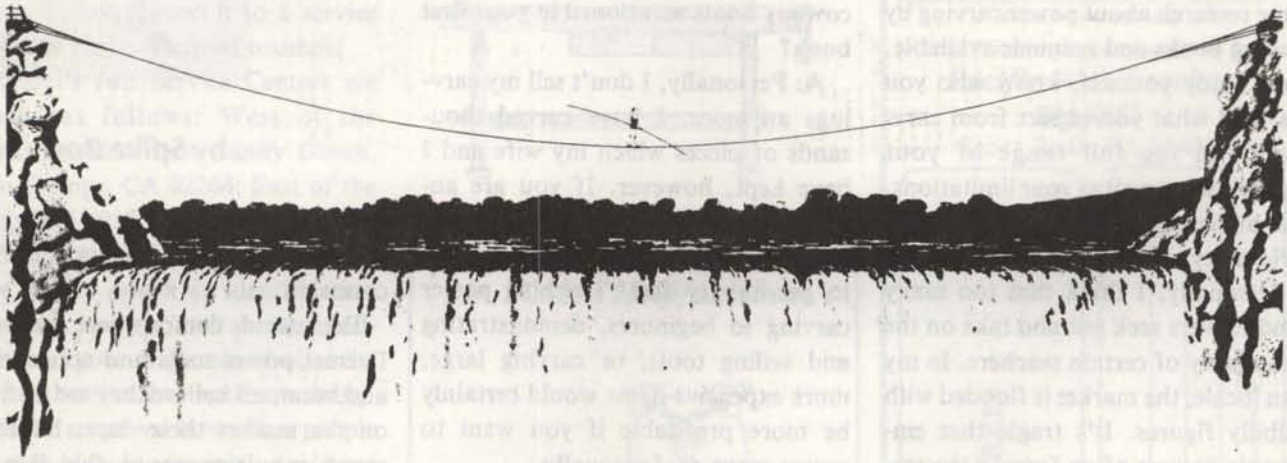

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Power Hand Tool Wood Carving

Lesson 12

by Spike Boyd

In this issue, I will answer some of the questions I receive most frequently from my readers and customers.

Q: I'm a rank amateur. Where do I find a power teacher in my area?

A: I know of very few accomplished power teachers in our country due to the newness of the power carving trade. I recommend that you first do some research about power carving by reading books and manuals available. Then study yourself, know who you are, and what you expect from carving. Find the full range of your capabilities as well as your limitations. The highest gift you have is your individuality.

Personally, I think that too many hand carvers seek out and take on the personality of certain teachers. In my own locale, the market is flooded with hillbilly figures. It's tragic that embryonic carvers often forsake the traditional style and customs of their original areas and come to take these lessons in our Ozarks region. Instead, why not take pride in your own heritage and customs and let that influence your own unique style? It is so discouraging to visit wood carving shows here in the Ozarks and find 50 tables full of duplicate hillbilly figures and miniature cowboy boots and shoes.

Q: What about the privately tutored power carving course I've heard you offer?

A: I phased out this course in 1982 when I wrote a book to provide my readers the same information at much less cost to them. I do plan to set up a power training center locally at some time in the future, possibly within the next year.

Q: Where do you sell the little $5 cowboy boots mentioned in your first book?

A: Personally, I don't sell my carvings anymore. I have carved thousands of pieces which my wife and I have kept, however. If you are anticipating a living from selling $5 carvings, you will find that you are going to get hungry fast. Teaching power carving to beginners, demonstrating and selling tools, or carving large, more expensive items would certainly be more profitable if you want to power carve professionally.

Q: I bought a cheap, big cylinder tool with a kit of accessories. What is your opinion of this?.

A: These kits are prepared to accommodate the vast kaleidoscopic array of art/craft/hobby and industrial uses of these tools. Only within the last two years have power carvers been recognized as one of the top users of power hand tools. Professional power carvers' kits are now becoming available with top-of-the-line tools and accessories.

Because I demonstrate and sell Dremel power tools and accessories, and because I believe they are the best on the market these days, I receive many inquiries about this line of power carving tools. This is not to say that you can't do good work with some other brand, but I'll address here some of the questions I get most often on the Dremel line.

Q: I bought a cheap big cylinder tool to see if I liked or could master power carving. Could I trade it in on the Dremel Moto-Flex 232 or 332?

A: I know of no one who takes trade-ins of used tools of any brand.

But your big cylinder tool may be a very handy item to have for many uses besides power carving, such as on a ranch, in a machine shop, or in your woodworking shop. So I personally feel that it is good business to be a two-tool owner.

Q: After 3 years of hard use, my power tool is losing its power and sparking excessively. What should I do?

A: Send it to the nearest service center listed in your Owner's Manual. Sometime during these three years, you must have inadvertently overlooked checking and replacing your motor brushes. It is far less expensive to insert a set of $2 brushes than to pay $25 or more for an overhaul of a scored commutator. When brushes get shorter than 3/16", change them. It is similar to replacing spark plugs in your automobile or points in your distributor. If you have the Dremel Moto-Tool 250, it is designed to run coolly and dependably until new brushes are required. It will then shut off without harming the tool, at which time you should send it to a service center for replacement of brushes.

Dremel's two Service Centers are located as follows: West of the Mississippi-4631 East Sunny Dunes, Palm Springs, CA 92264; East of the Mississippi-4915 21st Street, Racine, WI 53406.

Be sure to attach an identification tag with a *clearly printed* name and address, and your diagnosis of what the tool has been or has not been doing. You'd be surprised how often people forget to include a name and address in a legible

fashion when they ship a tool to a service center!

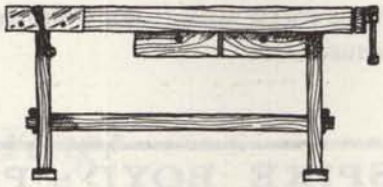
Q: How often do I grease the shaft core on my Moto-Flex 232/332?

A: I would be very careful on the type of lubricant you apply to your high speed shaft cores. Some greases contain ingredients which are not designed for high speed and will generate heat to the point of melting the rubber shaft housing. I recommend Dremel's new #990952 Shaft Lubricant, because it is designed specifically for 28,000 RPM Moto-Flex 232's and 332's. It is very inexpensive and is as integral to your tool as periodic lube jobs to your auto.

Q: Does it affect my warranty if I cut off the grounding prong on my electric tool's male plug?

A: It will *void* your warranty, so better pick up a 3-prong adapter. Nothing is more heart-rending than to be setting up your act at a show miles from home with no hardware stores open for miles, and finding that you forgot your adapter. This is when you are most prone to cut off that third prong, which is costly. Better to own several spares.

Spike Boyd is a power carver and author of The Complete Handbook of Power and Hand Tool Wood Carving. *He can be contacted at Route 1, Box 416, Highlandville, MO 65669.*



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Mr. Fix-It's Helpful Hints . . .

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Letters

continued from page 8

forwarded to him. We would also like to hear from other readers who have successfully sold woodworking designs to production shops. What advice can you offer?

Praise for PW

I think your publication is a wonderful service to both professional and amateur wood artisans. Keep up the good work!

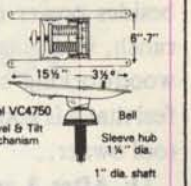
Thomas Saydah
Oakland, CA

Hey! You guys have already helped me out. I ordered some Sealacell from Rich Work off the reprint in the mailer!

Dave Wayland
Mill Valley, CA

(Dave is referring to a subscription solicitation we sent him that included a reprint of part of our Test Report on Sealacell finish, published in Pacific Woodworker *Issue 10 last December/January.)*

CHAIR PLANS & MECHANISMS



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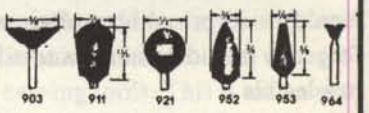

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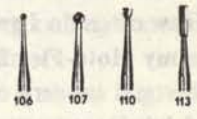

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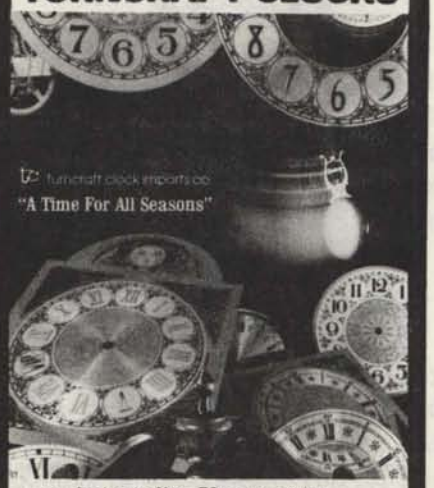

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Yin-Yang?

by Ray Levy

My wife and I have a small shop where we design and build a variety of woodwork. Among our various products is an occasional run of hardwood jewelry made of native or tropical woods and mounted in silver frames. This is a good way to utilize the small bits of exotic woods left over from larger projects. These pieces always attract interest and we generally sell all of them we care to make.

One of our most popular patterns is the yin-yang done in either domestic or tropical hardwoods.

My wife Annette, among other jobs, handles our sales and marketing department. On one of her scouting expeditions, she discovered a furniture store that uses the yin-yang as its trademark. Having called for an appointment, she planned to show them our pendants, hoping to sell them some to use as premiums.

Annette returned that evening with a rather strange look, and asked me, "Can you make a very strong yin-yang that would be very durable?" I thought for awhile and agreed that it could be done, still not knowing what for. When I finally got the whole story and found out who the recipient was to be, I offered to make the pendant at cost if I were allowed to photograph the lady wearing it.

This being agreed upon, I fabricated a stainless steel frame and mounted a yin-yang of walnut and ash in it. The wood received several heavy coats of an epoxy finish.

We took the finished pendant to the store and made a formal presentation to its new owner.

Turn the page to see a photograph of the new owner.

when you contact suppliers, remember to say you saw it in *Pacific Woodworker* . . .

Jessie of the Yin-Yang Waterbed Company, Santa Clara, California, proudly displays her new pendant made by Ray Levy of Soquel, California. (See story on previous page.)

New Products

News and Notes

Phillips Head vs. Recessed Square Head Screws: Comments from a Supplier

Woodworker's Supply Inc. of New Mexico suggests using case hardened Phillips head screws that can be driven with any Phillips screwdriver, rather than square head screws that may tie you to one source of supply. Woodworker's Supply sells the hardened Phillips head screws, as well as magnetic driver bits. You can reach them at 5604 Alameda N.E., Albuquerque, NM 87113 or call their toll free orderline, 800-645-9292 weekdays.

Information published in this section of the magazine is based on material supplied by product manufacturers and suppliers and has not been independently verified by Pacific Woodworker. *We appreciate hearing from readers about their experiences with products and services we publicize.*

New Moisture Meter Features Hammer-In Electrode

Lignomat's newest moisture meter, the Model H30, employs a true hammer-in electrode for fast moisture measurements. Dial in the wood type, tap the pins into the wood, press the On button, and read the moisture content of the wood, from 4 to 30%.

Model H30 can also be used with other electrodes in Lignomat's line of moisture meters. Contact Lignomat at 14345 NE Morris Ct., Portland OR 97230, (503) 257-8957.

Woodworking and Your Health

The April 1983 issue of *Woodworking Industry News* includes some notable comments on the toxic effects of wood and wood dust. The newsletter refers to *Woods Injurious to Human Health: A Manual,* a German book by B.M. Hausen recently translated into English by publisher Walter deGruyter New York). The book discusses dermatitis and respiratory problems resulting from direct contact with wood, dust, and shavings. The book is recommended for dermatologists, other specialists and employers in the woodworking industry generally.

For information on the newsletter, contact William A. Dost, Wood Products Specialist, Woodworking Industry News, University of California Cooperative Extension, Forest Products Laboratory, 47th & Hoffman Blvd., Richmond, CA 94804 or call 415-231-9582/231-9404.

Woodworking Machinery Manufacturers of America

NEW ORDERS INDEX

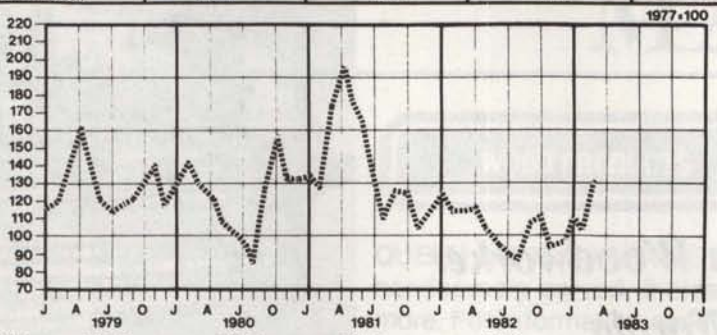
Source of Data and Compilation

The Woodworking Machinery Manufacturers of America's New Orders Index is compiled from monthly orders for new woodworking machinery and tools reported in dollars and incorporates a two-month moving average. A carefully selected sample of members report their data monthly. Participants in the Index reported over $120 million in orders in the base year of 1977.

Data on orders has not been adjusted for inflation or for seasonal factors.

Key Figures at a Glance:

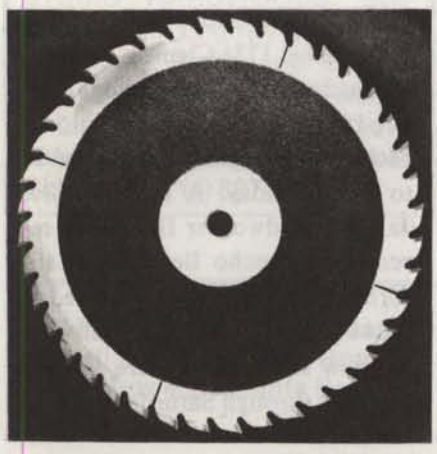
	Current Month	Last Month	Last Year	Year to Date
New Orders Index	104.1	107.0	114.4	-11.8%



	1979	1980	1981	1982	1983
JANUARY	115.8	131.3	134.2	124.8	107.0
FEBRUARY	118.1	142.1	127.7	114.4	104.1
MARCH	138.9	130.0	173.3	114.3	131.0
APRIL	162.3	122.3	195.3	115.6	
MAY	143.1	109.8	177.3	103.2	
JUNE	120.7	103.0	164.2	97.1	
JULY	114.0	96.2	127.4	89.1	
AUGUST	118.7	86.0	110.1	87.6	
SEPTEMBER	120.3	125.9	126.2	107.0	
OCTOBER	132.9	157.4	123.9	111.5	
NOVEMBER	140.9	132.1	103.8	96.8	
DECEMBER	117.2	132.0	112.9	98.6	
AVERAGE	128.6	12[illegible].3	139.7	105.0	

WMMA Orders Up

The Wood Machinery Manufacturers Association's New Orders Index has been on a gradual upward trend since last August and jumped to 131.0 in March 1983. Based on 100 for the base year of 1977, the New Orders Index is compiled from a sample of WMMA members, representing 109 U.S. companies who manufacture woodworking equipment for the furniture, casegoods, cabinet, sawmill, plywood/veneer and general woodworking industries.



A Saw Blade That Sands

United Saw Technologies has announced the development of a carbide-tipped saw blade that combines its sawing function with finish-sanding in a one-step operation. Called *Sanblade*, the new product is recommended for professional and industrial use and is said to yield a finish equal to that of 120 grit sandpaper. The blade is available with 40 teeth, in diameters from 8 to 14 inches, arbor hole sizes 5/8 and 1 inch, price ranges $128 to $175, with nonstandard sizes available on request.

For more information, contact United Saw Technologies Int'l, P.O. Box 405, 225 Franklin Avenue, Midland Park, N.J. 07432 or call (201) 471-3333.

Lumber Wholesaling Directory Available

The 1983 Membership and Distribution Directory of the North American Wholesale Lumber Association can be obtained for $10 postpaid from NAWLA, 2340 South Arlington Heights Road, Suite 680, Arlington Heights, IL 60005.

New Resin Paper

Carborundum's new Heavy Duty Resin Paper A-W628F has a bond system said to resist heat, loading, and buildup of wood swarf. The paper is recommended for stroke sanding and wide belt finishing operations, and is available in 80 to 180 grit for belts and rolls up to 52 inches wide. For more information contact Nora LaMarca, Carborundum Coated Abrasives, P.O. Box 477, Niagara Falls, NY 14302 or call (716) 297-2000.

Preservation Directory and Clearinghouse Established

Classical Forms, a Nevada-based preservation firm, has established a central clearinghouse for professionals in the restoration/preservation fields. Included in their services are a directory of preservation specialists and a telephone "hot-line" for information and referrals to available technicians and consultants in the field. Directory listings cost $20. For more information on the Directory and other services contact Karen Lord Wright, Directory Coordinator, Classical Forms, Ltd., P.O. Box 18034, Steamboat, NV 89511.

WOODWORKING, MACHINERY & FURNITURE SUPPLY FAIR
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Store Review

Woodline, The Japan Woodworker in Alameda, California

As its name implies, Woodline, The Japan Woodworker specializes in Japanese tools, although the store carries some Western tools, too. Owner Fred Damsen started out by importing the Japanese hand tools he'd learned to love while building a 37' sailboat. Over the past several years the business has outgrown both his house and a 900 square foot shop. Woodline now occupies an 11,000 square foot building near San Francisco Bay.

"To be incredibly fair to the customer, to go the extra measure, to employ knowledgeable salespeople," is Woodline's philosophy, comments Nancy Hurwitz, Manager of the Alameda store. The sales staff all make at least a portion of their income as professional woodworkers, providing customers the kind of competency not found in a typical hardware store, says Nancy.

Fred Damsen founded Woodline The Japan Woodworker chain of stores on the concept of service to the woodworker.

"Why Japanese tools?" we asked. "Try one," Fred responds. He is especially fond of Japanese chisels.

Besides tools, Woodline carries a full selection of hand-picked, cabinet grade lumber. Much of the wood is highly figured, to suit the needs of the person building a single fine cabinet, as opposed to someone doing a large production job. Marine grade lumber is also available. Each month the store has a special "wood of the month" sale on a particular kind of wood advertised in their newsletter.

Woodline sponsors free woodworking demonstrations the second Saturday of each month. Other special events include a show co-hosted with the California Carvers Guild each August (see *Pacific Woodworker's* Calendar), an open house with special demonstrations in November, and a craft fair in May.

Woodline also sponsors a series of classes in woodworking techniques. "It's a comfortable atmosphere," notes Nancy. "People bring their lunch and stay all day." When the weather turns cold, Hazel the woodstove provides some additional cheer.

General Manager Nancy Hurwitz demonstrates Japanese saws which cut on the pull stroke, not the push stroke.

In addition to the retail business, Woodline offers mail order service worldwide. Their catalog ($1.50 for the 1983 edition) includes a variety of Japanese saws, carpenter's tools, planes, knives, chisels, woodcarving tools, even some left-handed tools.

Woodline The Japan Woodworker is located at 1731 Clement Avenue, Alameda CA 94501, telephone (415) 521-1810. Hours are 9:30 to 5:00 Monday through Saturday and 11 to 4 on Sunday. A second store, Japan Woodworker II, opened recently in Rancho Bernardo, California, near San Diego. Located at 11844 Rancho Bernardo Road #42, the new store's hours are 10 to 6 Monday through Saturday.

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6 pc. Ashley-Iles carving set $75. We carry a complete line of high quality woodworking tools and supplies. Price list $1 (refundable with order). Open Air Cabinets, P.O. Box 501 Batavia, IL 60510.

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Classified Market Information: Rate: 25 cents per word, minimum of 25 words. Payment must accompany all classified ads. Border, $3.00. Deadline for ads for Issue 15 is August 20, 1983. *Pacific Woodworker*, Box 4881, Santa Rosa, CA 95402 (707) 525-8494.

Calendar & Announcements

continued from page 11

Sept. 26-30. San Diego, CA.
Windsor Chair workshop with Michael Dunbar. Contact The Cutting Edge store, 7626 Miramar Rd. Suite 3500, San Diego 92126 or (619) 695-3990.

Sept. 28. San Diego, CA.
Michael Dunbar slide/lecture "Restoring an 18th century house." Contact The Cutting Edge store, 7626 Miramar Rd. Suite 3500, San Diego 92126 or (619) 695-3990.

October. San Diego, CA.
Month long Antique Tools Exhibit, The Cutting Edge store, 7626 Miramar Rd. Suite 3500, San Diego 92126 or (619) 695-3990.

Oct. 3-7. Berkeley, CA.
Windsor chair workshop with Michael Dunbar. Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 4. Berkeley, CA.
Jeffery Dale slide/lecture, "Chairs." Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 5. Berkeley, CA.
Michael Dunbar slide/lecture, "Restoring an 18th century house." Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 6. Berkeley, CA.
Jeffery Dale slides/demonstration, "Chair design, conception to completion." Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 7. Berkeley, CA.
Simon Watts slides/lecture, "Lapstrake Boat Building." Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 10-15. Berkeley, CA.
Simon Watts workshop, "Build a Lapstrake pram." Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 12. Berkeley, CA.
Garry Bennett slide/lecture, "The Untraditional Furniture Maker." Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 21-22. Berkeley, CA.
Simon Watts workshop, "Lofting." Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 22-23. Berkeley, CA.
Grew-Sheridan Chairmaking seminar. Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 24-28. Los Angeles, CA.
Make a Windsor chair workshop with Michael Dunbar. Contact The Cutting Edge, 3871 Grand View Blvd., Los Angeles 90066 or (213) 390-9723.

Oct. 24-29. Berkeley, CA.
Simon Watts workshop, "Build a Lapstrake pram." Contact The Cutting Edge store, 1836 Fourth Street, Berkeley 94710 or (415) 548-6011.

Oct. 26. Los Angeles, CA.
Michael Dunbar slide/lecture, "Restoring an 18th century house." Contact The Cutting Edge, 3871 Grand View Blvd., Los Angeles 90066 or (213) 390-9723.

Oct. 31-Nov. 4. Phoenix, AZ.
Make a Windsor chair, workshop with Michael Dunbar. Contact The Cutting Edge store, 10844 N. 23rd Ave., Phoenix or (602) 997-TOOL.

Nov. 2. Phoenix, AZ.
Michael Dunbar slide/lecture, "Restoring an 18th century house." Contact The Cutting Edge store, 10844 N. 23rd Ave., Phoenix or (602) 997-TOOL.

Nov. 26-27. Fife, WA.
Northwest Carvers third annual show. For details contact Northwest Carvers, 115 Del Monte Ave., Fircrest, WA 98466.

Books Received

Recently Published...

The Conservation and Restoration of Antique Furniture by Stan Learoyd ($9.95 from Sterling Publishing Co.) discussses restoring chairs, tables, couches, mirrors, doors and mouldings. The book is intended for reference use by the skilled furniture maker who knows period pieces and is competent at woodturning, carving, and upholstery.

Contemporary Furniture: An International Review of Modern Furniture 1950 to the Present by Klaus-Jurgen Sembach ($37.95 from Hastings House, published by the Architectural Book Publishing Co.) shows over 1000 contemporary pieces with introductory text and an overview of design trends. Also from Sterling Publishing Co. ($6.95), **Making Wood Banks** provides designs and how-to instructions for all kinds of banks from piggy to penguin.

The Beginner's Handbook of Woodcarving by Charles Beiderman and William Johnston (Prentice-Hall, $10.95/$19.95) discusses carving tools and their use, the various types of carving including relief, in-the-round, and line carving, and includes patterns for birds, flowers, animals and other figures.

Popular Science Books has published **Do-it-yourself Yearbook 1** ($17.50 distributed by Van Nostrand Reinhold). A collection of how-to advice from experts in the field, the book covers a variety of woodworking projects as well as remodeling, solar design, wiring and plumbing, and a section on tools and materials.

Another book published by Van Nostrand Reinhold ($10.25/$18.50) is Edgar Randall Beard's **Make It with Wood**. The author offers advice and project ideas based on forty years' experience, including sections on door and drawer construction, furniture, millwork, and making your own power tools.

Building Your Own Kitchen Cabinets by Jere Cary (The Taunton Press, $11.95) provides plans and instructions on all aspects of cabinet construction and installation.

Pacific Woodworker's regular Book Reviews column will be back in the next issue.

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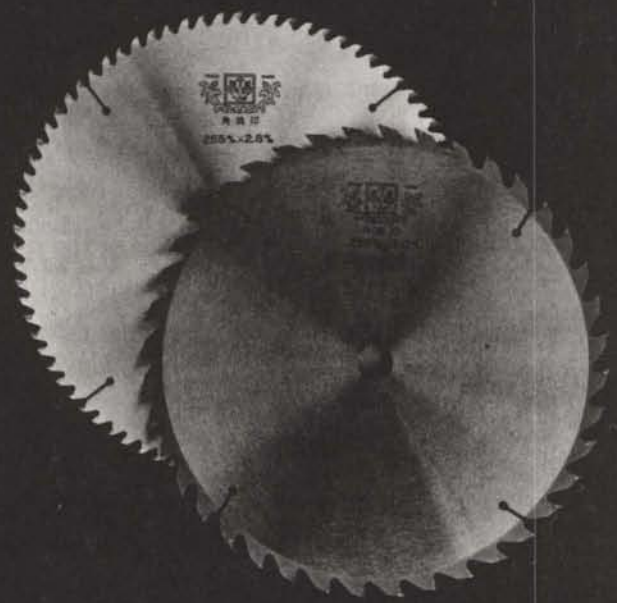

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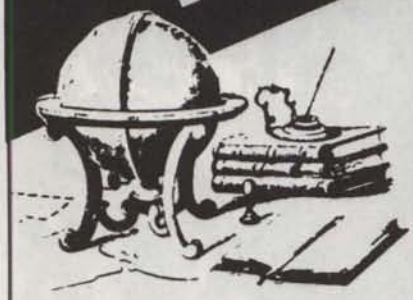
NEW and OUT OF PRINT WOODWORKING BOOKS



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A Pacific Woodworker Show Review

by
Charles Harris

Ft. Mason, San Francisco, CA.

The Working with Wood Show

Last April fifteen thousand woodworkers and friends converged on the Fort Mason Center in San Francisco, California for the Working With Wood show. Most attendees and exhibitors found the experience rewarding.

The commercial, trade show portion of the three-day-long event featured woodworking machinery manufacturers, tool makers, and woodworking stores. Exhibitors demonstrating tools and techniques attracted the biggest crowds (see photo).

The NCWA raffle drew interest and crowds, but not much cash.

On the other hand, exhibitors selling wood crafts and finished wood products attracted more woodworkers stealing ideas than buyers with money in hand. The show definitely catered far more to the woodworker than the consumer.

Many woodworking associations manned booths at the show, including the California Carvers Guild, the Marquetry Society of America, and the National Wood Carvers Association (see photos).

The highlight of the show was an incredible exhibit of finely crafted furniture set up as a gallery display in the center of the exhibit hall. Covering 2500 square feet, the display was the largest such exhibit ever assembled on the West Coast. Hundreds of pieces of carefully constructed woodwork were tastefully arranged with carpeting and good lighting. The Northern California Woodworkers Association, coordinators of the gallery display, also sponsored woodworking demonstrations by Dennis Young (see *Pacific Woodworker*, #9) and Tom McFadden.

The exhibit was not without its problems, however. There was so much woodworking on display that it was hard to see it all. I wandered through the exhibit several times, and still missed several pieces.

As for the Working with Wood show as a whole, parking was a severe problem, and many potential attendees gave up after encountering the

Mr. Sawdust attracts a crowd at the Forrest Manufacturing booth.

time-consuming shuttle bus system. And the lack of loading docks slowed the packing up of the show and sent woodworkers scrambling to get their pieces out of the rain. Rain on Saturday found its way through a few holes in the roof of Ft. Mason, and several woodworkers hastened to rescue some furniture from the leaks. Fortunately the next Working with Wood show should have better facilities. (It is scheduled for San Francisco's Cow Palace.)

But the only really sour note about the Working with Wood show was financial. While machinery manufacturers and tool suppliers appeared to do quite well, neither the organization sponsoring the show, The Woodworker's Foundation, nor the Northern California Woodworkers Association broke even on the show. The NCWA attempted a raffle of woodworking pieces, but financial returns on that, as well as direct sales at the show were disappointing. In fact, the NCWA is soliciting donations to help recover their costs for carpeting and lighting at the exhibit. But although immediate sales were minimal, based on the thousands of business cards picked up during the show, many individual woodworkers involved will recoup their investment from future sales resulting from the extraordinary display.

Woodworking associations were well represented at the show, including: (left) Norm Davis and (below, right) Dick Roberts of the National Wood Carvers Association demonstrating power carving, and Carl Eaton (below, left) of the Marquetry Society of American with his marquetry saw.

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Conservation: The Giving Tree?

An Essay by Martin R. Zschoche

As a woodcraftsman, biologist, and lover of creation, I am often awed by the wood that passes through my hands. One can hardly *not* stand in wonderment when visiting a major hardwood lumber company and seeing 10', 12', and 14' beams of oak, maple and mahogany. You have to stop for a moment and appreciate the trees from which these came and realize the rich resource in front of you.

The lumber we purchase has the potential of becoming a finished masterpiece or a pile of sawdust, depending on how skillful we are in planning each piece for maximum usage with the fewest number of mistakes. Regardless of how the project turns out, though, the resource is used up and that particular piece of wood is gone.

The forests are called our renewable resource. We have always believed that the trees yield up their wood and more trees take their place. But, is it really true that trees are an unending resource? The history of furniture-making shows a time not too long ago when trees grew to such diameter as to yield planks wide enough for large unjoined table tops. "Old-Timers" talk of blistered green poplar trees four feet across at the base with clean lumber up 50 feet. Walnut burls, sliced for veneer, used to measure 10 and 12 square feet in size rather than 1 square foot or less. The question is, "If the tree is truly a renewable resource, where now are these giants of the forests?" Are the 12' and 14' planks that we now use destined for extinction, only to be replaced by 4' and 6' midgets?

One day my two-year-old daughter asked me to read her a book she had found in the family library. I believe it well portrays an attitude which we all must be on guard against. It is entitled, "The Giving Tree," by Shel Silverstein, and tells of a relationship between a boy and a tree.

As a youngster, "boy" loved the tree and "tree" reciprocated by letting him play in her branches, eat her apples, and rest in her shade. But, as "boy" grows older and his desires increase, he makes only brief, infrequent, and self-centered trips back to "tree" asking for apples to sell, branches to build a house and the tree's trunk to build a boat. Each time

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"Are the 12' and 14' planks that we now use destined for extinction, only to be replaced by 4' and 6'' midgets?"

"boy" visits her, "tree" hopes for a renewal of their earlier friendship, but sadly, each encounter leaves "tree" lonely and disappointed.

At the end, "boy" comes back, old and decrepit. "Tree" apologizes, having nothing left to give, but "boy" needs nothing now except a place to sit and be quiet. "Tree" offers her stump for him to sit on and, at last, she has what she has wanted all along, if only by default. She is no longer a "tree," but nonetheless she has the "boy," too old to go away anymore.

This little story vividly portrays thankless greed, with the result being only a burned-out shell of a man, lacking in any degree of fulfillment. Having taken everything, he is left with nothing.

Our modern woodworking shops are often in the same position as "boy" in the story, consuming large quantities of a valuable resource and discarding pieces deemed either too small to be of practical economic value or flawed in some way requiring too much work to repair. Time is money, and none of us want to slow down on production lest we lower our profits. Perhaps, though, the time has come to realize that our trees may not last forever and look for better ways to conserve that which we now have.

From the large shop on down, we can start by improving our own skills in woodworking and making fewer cutting errors. Take the time to make the joint fit right the first time rather than cutting it short, only to cut a second or third board. Take time, also, to sand and finish your work with care. Poorly constructed and poorly finished furniture will not stand the test of time and will only result in the need for an early replacement, thus using up more valuable wood.

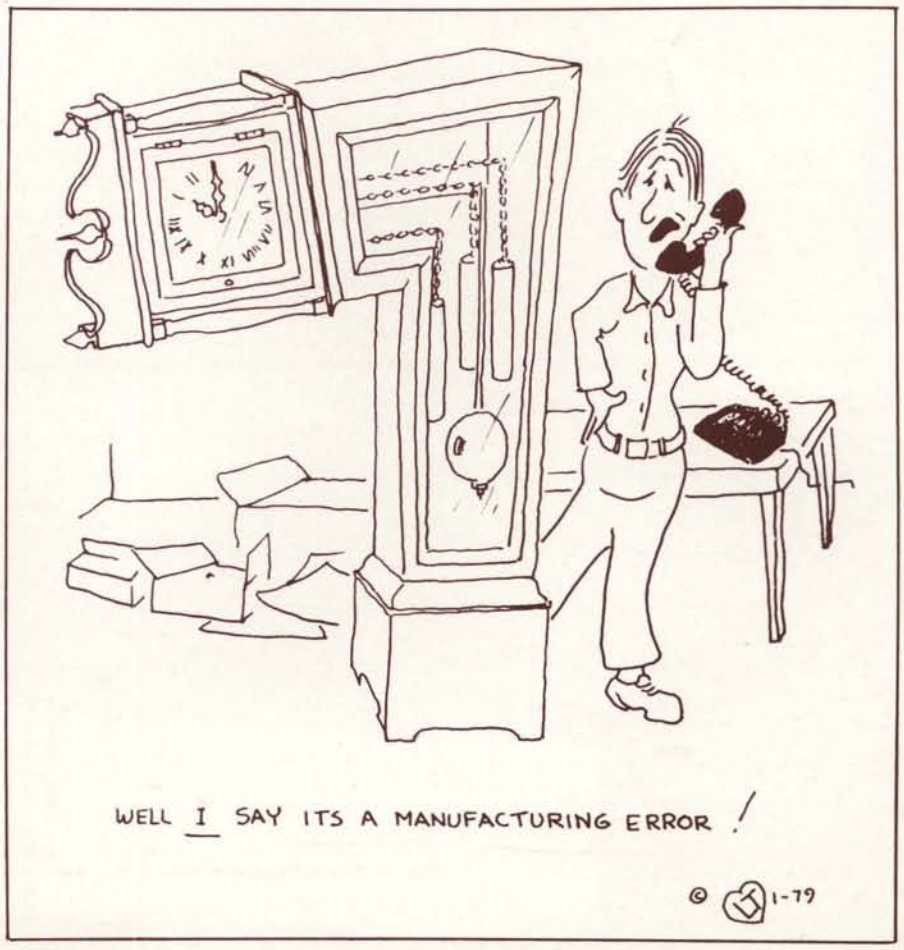
Cut-offs and scraps can be used to make corner and angle blocks or sold to smaller shops to make toys or wooden jewelry. Small pieces of exotic hardwoods can be pulverized on a belt sander, with the dust collected and stored for use as matching wood filler and putty when mixed with glue. This wood dust and glue mixture can also be used for certain kinds of inlay work. At the very least, when finding no other possible use for scraps, they can be burned in the fireplace or potbellied stove to heat the house and preserve another valuable resource, the money we have to pay to the utility companies.

Perhaps also, by taking the time to attend to these "little" things, we may find an improved quality in our woodwork. As we learn to appreciate what we have, the natural result is greater care in how we use it.

"The lumber we purchase has the potential of becoming a finished masterpiece or a pile of sawdust . . ."

It seems to me that on many levels we all benefit when we make a conscious choice to be better caretakers of our natural resources, and I would even venture to say that "tree" herself would at last be happy and fulfilled in knowing of our respect and gratitude for her wood.

Martin Zschoche is a professional woodworker in Vista, California.



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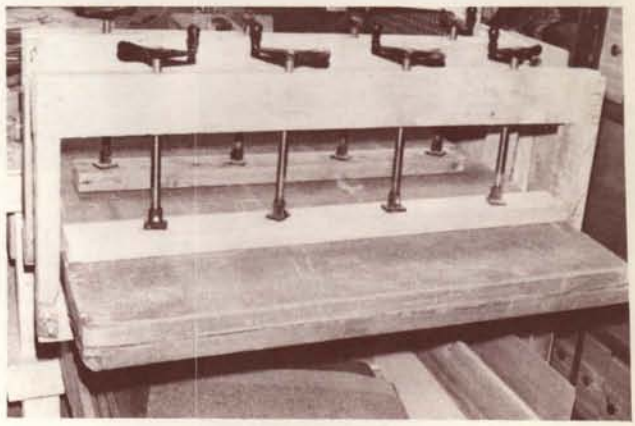

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(see page 31)

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